

THE MILLING WORLD

AND

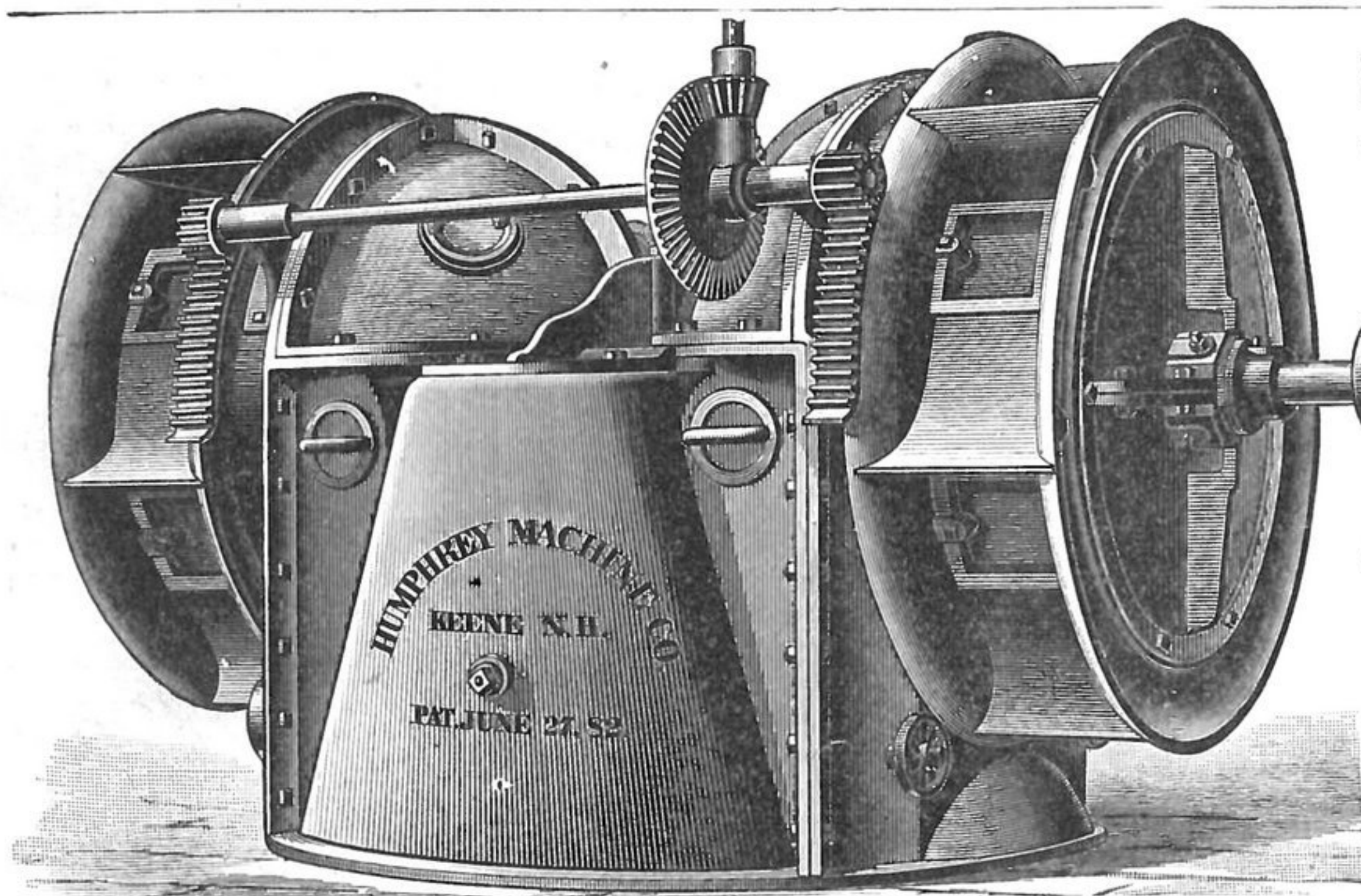
CHRONICLE OF THE GRAIN AND FLOUR TRADE

PUBLISHED EVERY MONDAY MORNING.

VOL. XXIII. No. 4.

BUFFALO, N. Y., SEPTEMBER 22, 1890

\$1.50 PER YEAR.



THE X-L-G-R OR
CIRCUMSHOT

Water Wheel

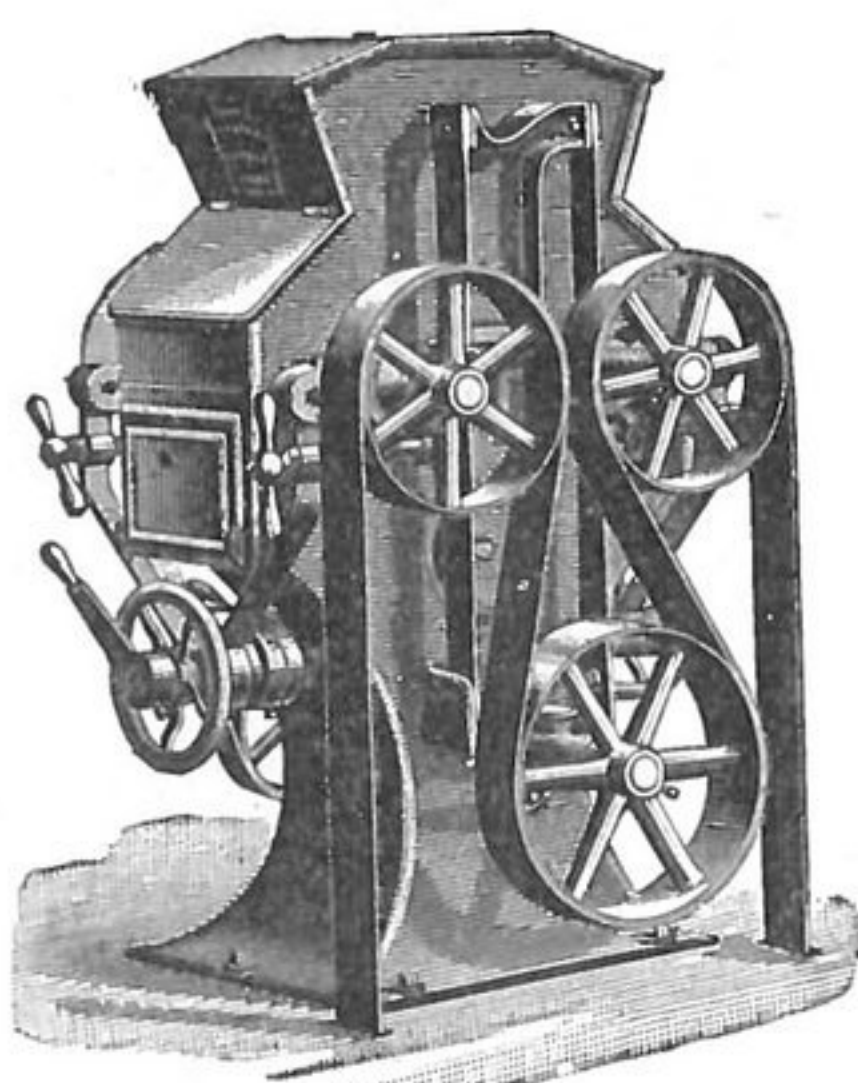
On Horizontal Shaft. Saves cost, annoyance and loss of power incident to use of gears. Affords more available power from water applied at full or part gate than any other. The cheapest, best and most desirable Water Wheel yet produced.

EFFICIENCY,
ECONOMY and
EXCELLENCE

FULLY GUARANTEED.

Humphrey Machine Co

KEENE, - - N. H.



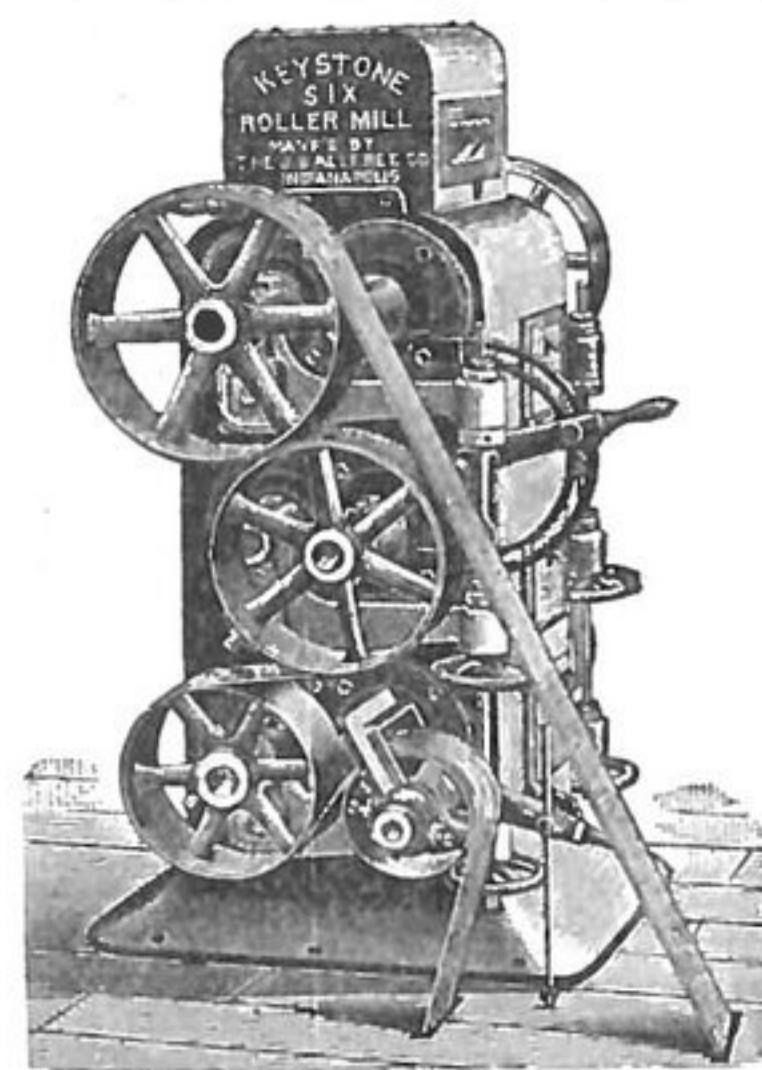
"Keystone" 4-Roller Wheat Mill.

Flour Mills. Corn Mills.

Send for Circular of our New 6-Roller.
Corn and Feed Mill.

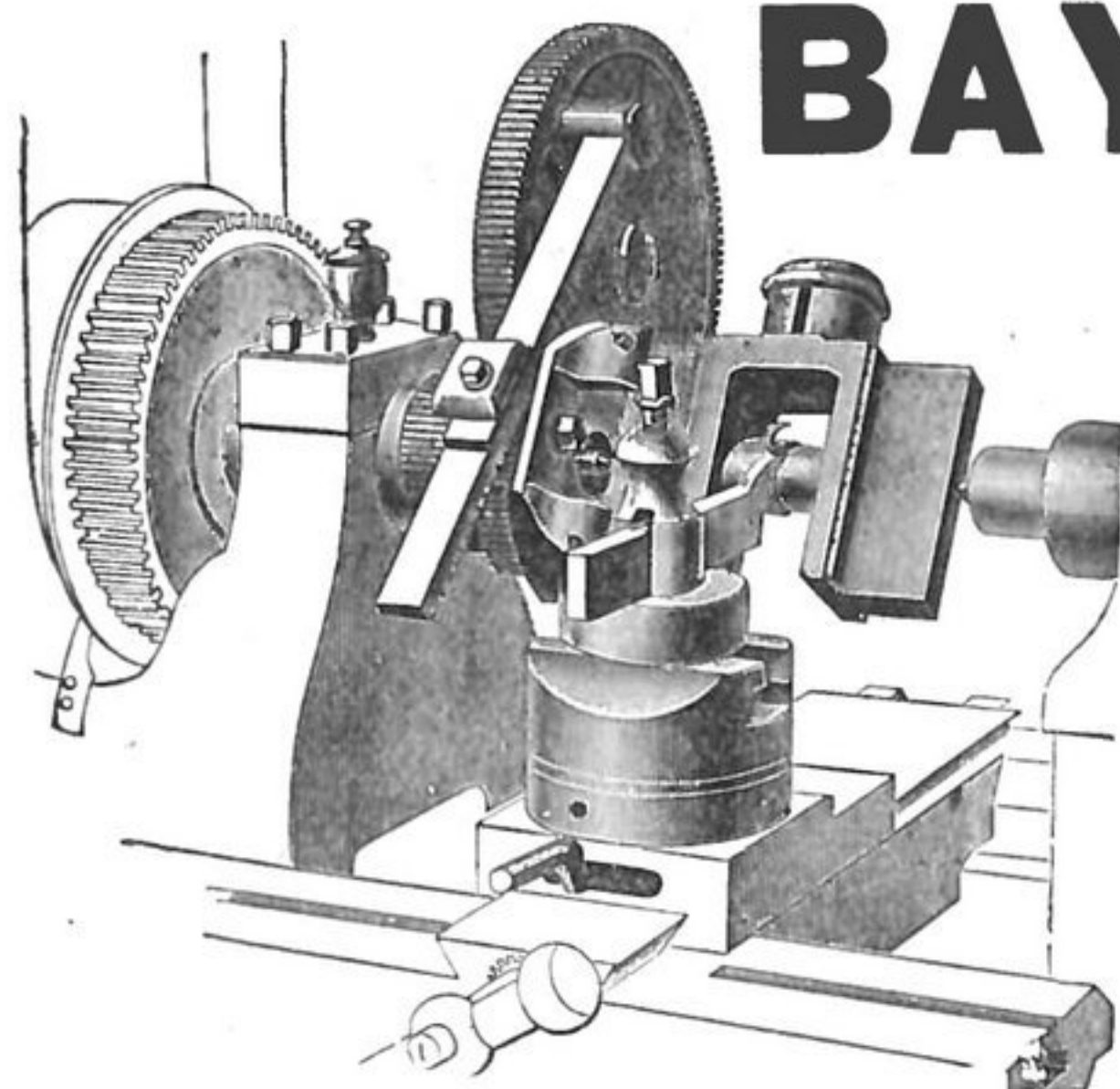
Entire Belt Drive.
Positive Differential.
Automatic Vibratory Feed.
Large Capacity.

Easily Operated.
Great Strength and Rigidity.
Simple Adjustments.
Perfect Construction.



"Keystone" 6-Roller Corn & Feed Mill.

ADDRESS THE J. B. ALLFREE CO., 76 to 86 Shelby Street, INDIANAPOLIS, IND.



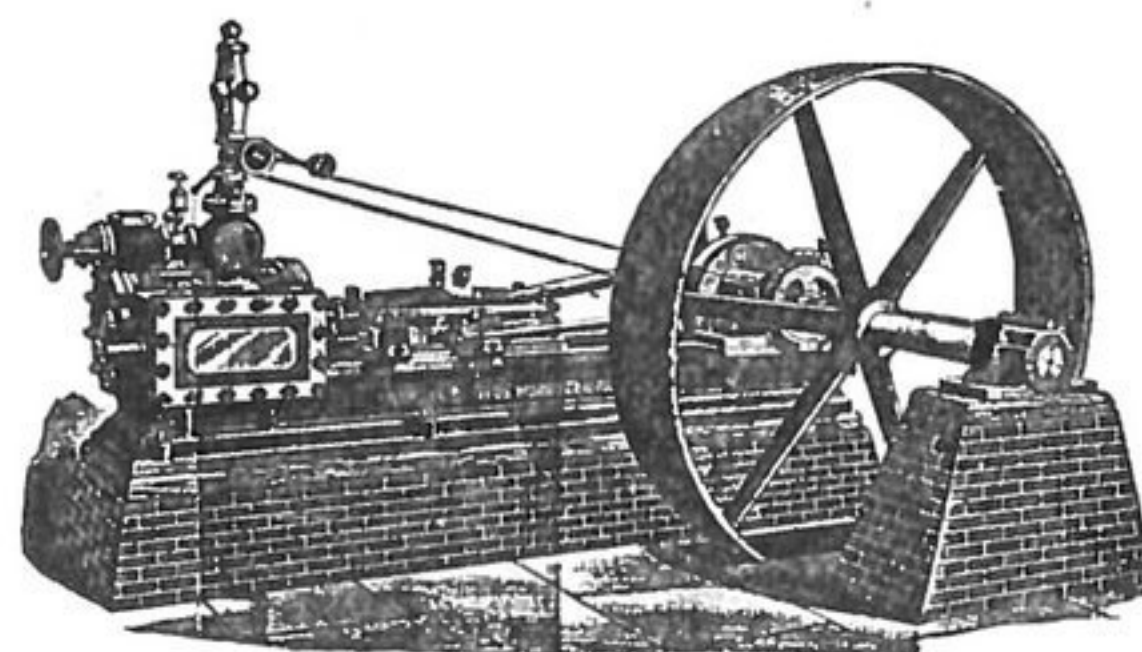
PATENT CROSS-HEAD MACHINE.

BAY STATE IRON WORKS

— MANUFACTURERS OF —

Engines, Boilers & Hoisting Machines

Also the Patent Cross-Head Machine and Acme Cube Pipe Tongs. We make either Center or Side Crank Engines, on same bed. Make engines from 5 to 250 Horse-Power. Have over 3,500 Engines and Boilers and over 1,000 Hoisting Machines in use, and all giving good satisfaction. Send for Catalogue and Prices.



HORIZONTAL ENGINES.

Noble & Hall, Box 462, Erie, Pa.

OFFICE OF CASE MANUFACTURING COMP'Y COLUMBUS, OHIO.

The Case Roller Mills. Over 14,000 Pairs in Use.

PLEASE READ OUR DESCRIPTION OF THEM, EVERY STATEMENT OF WHICH IS ABSOLUTELY TRUE.

PLEASE READ WHAT MILL OWNERS SAY ABOUT THEM.



The accompanying cut is a correct illustration of our latest improved Four Roller Mill. For fine work, great durability, simplicity, and general excellence, they stand "head and shoulders" above all others.

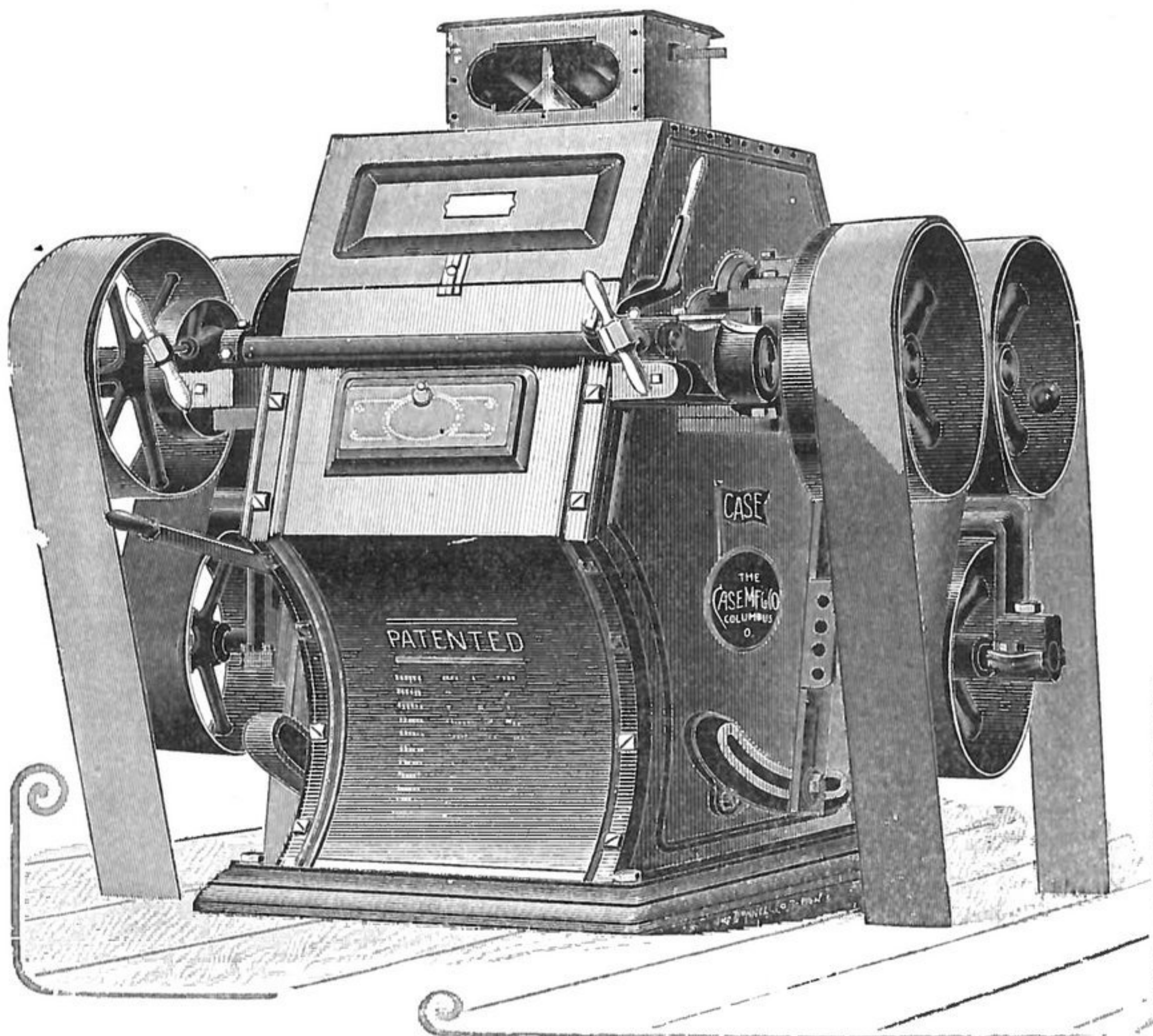
The frame is of iron with a heavy iron base.

The wood-work in top is of select cherry and black walnut, carefully shellacked and varnished.

The handles of adjusting screws and levers are finely nickel plated.

The joints are tight and dustless.

The adjustments easy, simple and perfect.



The roll bearings are wide and finely babbitted.

The belt drive is positive—no little short belts to slip.

The door for examining stock is a great convenience.

The arrangement for leveling rolls, simple and accurate.

The rolls can be thrown apart their entire length by one movement of the lever, and brought back again to original position, requiring no re-setting or experimenting.

Each machine is provided with our AUTOMATIC VIBRATING FEED, which requires no attention, and never fails to spread the feed the entire length of the rolls.



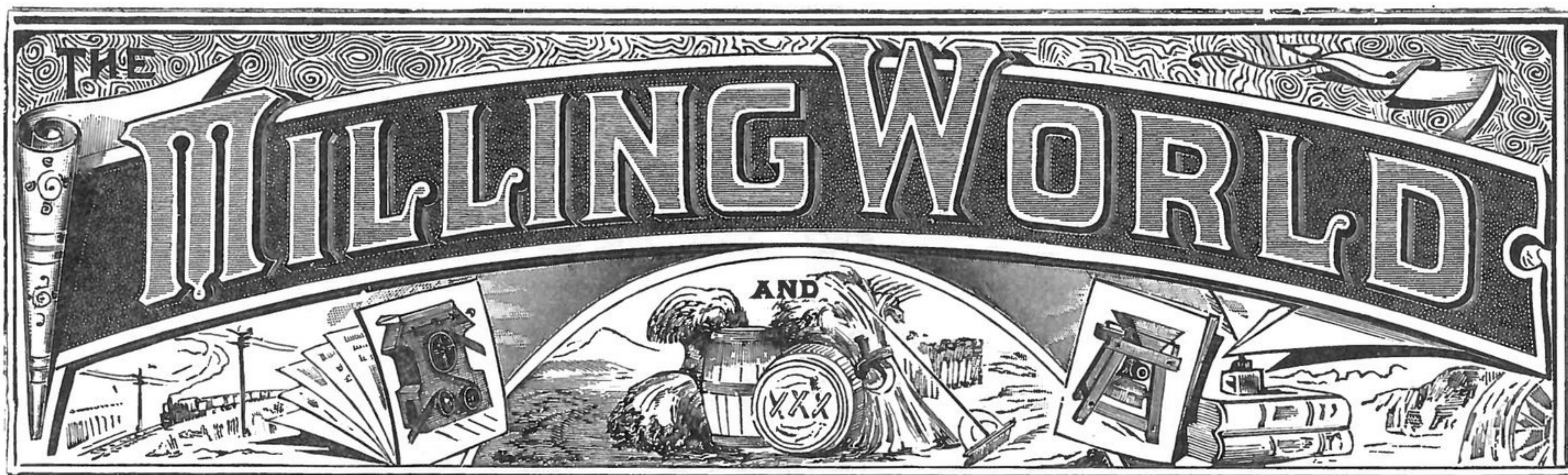
LISTEN! MICHIGAN MILLERS TALKING NOW.

CHARLOTTE, MICH., AUG. 5, 1890.

MESSRS. CASE MFG. CO., COLUMBUS, O.

Gentlemen: The mill is running fine. We are enjoying quite a fine litt'e trade. Already have put over twenty tons of flour on the market here since we started the 7th of July, and it is giving elegant satisfaction. Every one who has seen our outfit pronounces it A 1, and the Case Automatic Feed can't be beat. In fact the Rolls are models of perfection. We are making a close finish and placing our goods alongside of the long system mills, carrying off the cake. We are highly pleased with the millwright work, and find your Messrs. McKenie and Shough congenial gentlemen to do business with.

Very truly yours, PERKINS & MOON.



AND
CHRONICLE OF THE GRAIN AND FLOUR TRADE

PUBLISHED EVERY MONDAY MORNING.

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APOLOGISTS of the National proclaim that Mr. Arnold, who did not receive the "protection" of the National in the suit recently brought against him, is "protected" by the bond of the company from whom he bought the rolls in question. Hurroo for Arnold! Hurroo for the National!

BREADSTUFF exportations in August began to show a falling off in consequence of the shortage in American cereal crops. The wheat grain exportations in August amounted to only 5,330,270 bushels, worth \$4,949,289, against 6,835,033 bushels, worth \$5,866,735, in August last year. For July and August this year the wheat total was 9,696,824 bushels, worth \$8,950,297, against 10,076,428 bushels, worth \$8,596,098, in the same months last year. The wheat flour exports in August this year were 850,045 barrels, worth \$4,057,178, against 1,019,735 barrels, worth \$4,966,532, in August last year. During July and August this year the total was 1,575,471 barrels, worth \$7,356,001, against 1,858,533 barrels, worth \$8,929,124, in the same months last year. The August barley exports in August were \$38,389, against \$30,009; corn \$1,429,552, against \$2,235,459; corn-meal \$79,415, against \$86,237; oats \$12,915, against \$9,244; oatmeal \$45,309, against \$30,201, and rye grain \$88,793, against \$58,359. The August total of breadstuff exportations was \$10,700,840, against \$13,362,776, and for July and August \$21,434,509, against \$23,169,721 last year. The total for the first 8 months of 1890 is \$103,474,192, against \$80,399,430 in 1889.

The capricious winter of 1889 90 is followed by an exceedingly capricious summer. Every month since the opening of spring has a record that is simply abnormal. All over the Northern Hemisphere there have been heavier rains, hotter and colder extremes, worse floods, worse drouths, worse vegetable blights, worse insect pests and worse conditions in general for agriculture than have been known for many years. In the United States the variations have been so remarkable that the fall of snow in early September in the Northwestern States hardly received a notice. At Ardock, North Dakota, four inches of snow fell on September 12, and at Sioux Falls, South Dakota, the change from warm to cold weather was almost as sudden as a dynamite explosion. On that date there was freezing weather in the Northwest. St. Vincent, Minnesota, reported 30 degrees and 2 inches of snow. Helena, Montana, reported 26 degrees, and Fort Carter and Cheyenne 28 degrees. Cloudiness prevented frosts in the corn-belt, but the whole situation was decidedly winterish for a month that ought to bring "Indian Summer." The heavy rains and the snow threatened sprouting of wheat in shock in important areas. The extent of the damage can not be known for several days. The northwestern farmers, who held outdoor picnics in midwinter, can now boast of sleighing parties in summer. This is a great and glorious country, but no more open winters, please!

OUR esteemed Kansas City cotemporary is rapidly running the usual gamut of all enthusiastic converts. He has now reached that calm and philosophical mental attitude, in his thick-and-thin advocacy of the Millers' National Association, in which he pronounces all of his esteemed cotemporaries,

who do not agree with him in his now pet fad, asses, liars, falsifiers, misrepresenters and other dreadful things. He is making rapid progress. He is now in complete accord with the "Yahoo" and the Milwaukee Cawker, and even quotes the latter's alleged explanation of the new constitution as the best thing in its line extant. Our cotemporary is very far gone, indeed. Here is a paragraph from one of its September utterances, showing how very far gone it is: "Whatever the Association may have been guilty of in the past, under its present management it is an eminently worthy institution. It is not to blame for the piratical deportment and questionable methods of the Minneapolis paper. We happen to know of several very prominent members who are thoroughly disgusted with the rank egotism and lordly assumption of the editor of that paper, who imagines that he holds the destiny of the Association and the entire milling industry in the palm of his hand, but they are not going to give the even more reckless and short-sighted editors who continue to misrepresent the Association the satisfaction of telling them of it." To all of which we ejaculate "Rats!"

THE Minneapolis "Yahoo" has been called "a pirate of the deepest dye" by its Kansas City chum. The name seems to be an apt one. Its treatment of men and firms who do not patronize it is illustrated in its recent vicious comments on Mr. John Murray Case, now living in England. Referring to Mr. Case's paper prepared for the recent Edinburgh convention of the British and Irish millers, the "Yahoo" says that "he knows about as much about the commercial side of the American milling trade as a hen does of astronomy." If the "commercial side of the milling trade" means speculation, doubtless the "Yahoo" could give Mr. Case points, but if the experience of years in building mills to meet the actual commercial demands of milling is to count, Mr. Case can give the "Yahoo" any number of points. The house founded by Mr. Case does not patronize the "Yahoo," and that solemn fact explains the animus of the "Yahoo" when it goes out of its way to say that Mr. Case's "experience in the United States has been limited to the manufacture of machinery and the sale of the same mostly to small mills in the back-woods." These utterances are evidently intended to injure Mr. Case in England. Their absurdity will be understood by any miller in this country, and Mr. Case's English patrons will not be affected by them, for they know that the Case inventions are prominent in the United States, and that every milling establishment in all the largest towns employs them. Case milling outfits complete are counted simply by the thousand in this country, a fact that may not be known to the "Yahoo," which is a grain-speculators' and flour-exporters' paper, and has no connection whatever with practical flour-makers. A successful man like John Murray Case, and a successful house like the Case Manufacturing Company can need no defense against such comments by such a paper as the "Yahoo." The only trouble with Mr. Case and the Case Manufacturing Company is the fact that they do not patronize the "Yahoo." Their machines are everywhere, even in Minneapolis, which is hardly a "back-woods" locality.

The DAWSON ROLL WORKS CO.

FOUNDERS & MACHINISTS,

—MANUFACTURERS OF THE—

Dawson Roller Mills

—AND FURNISHERS OF—

CHILLED IRON ROLLS

WITH DAWSON PATENT CORRUGATION.

ALL STYLES OF FLOUR MILL ROLLS RE-GROUND AND
RE-CORRUGATED WITH ANY FORM OF CORRUGATION.

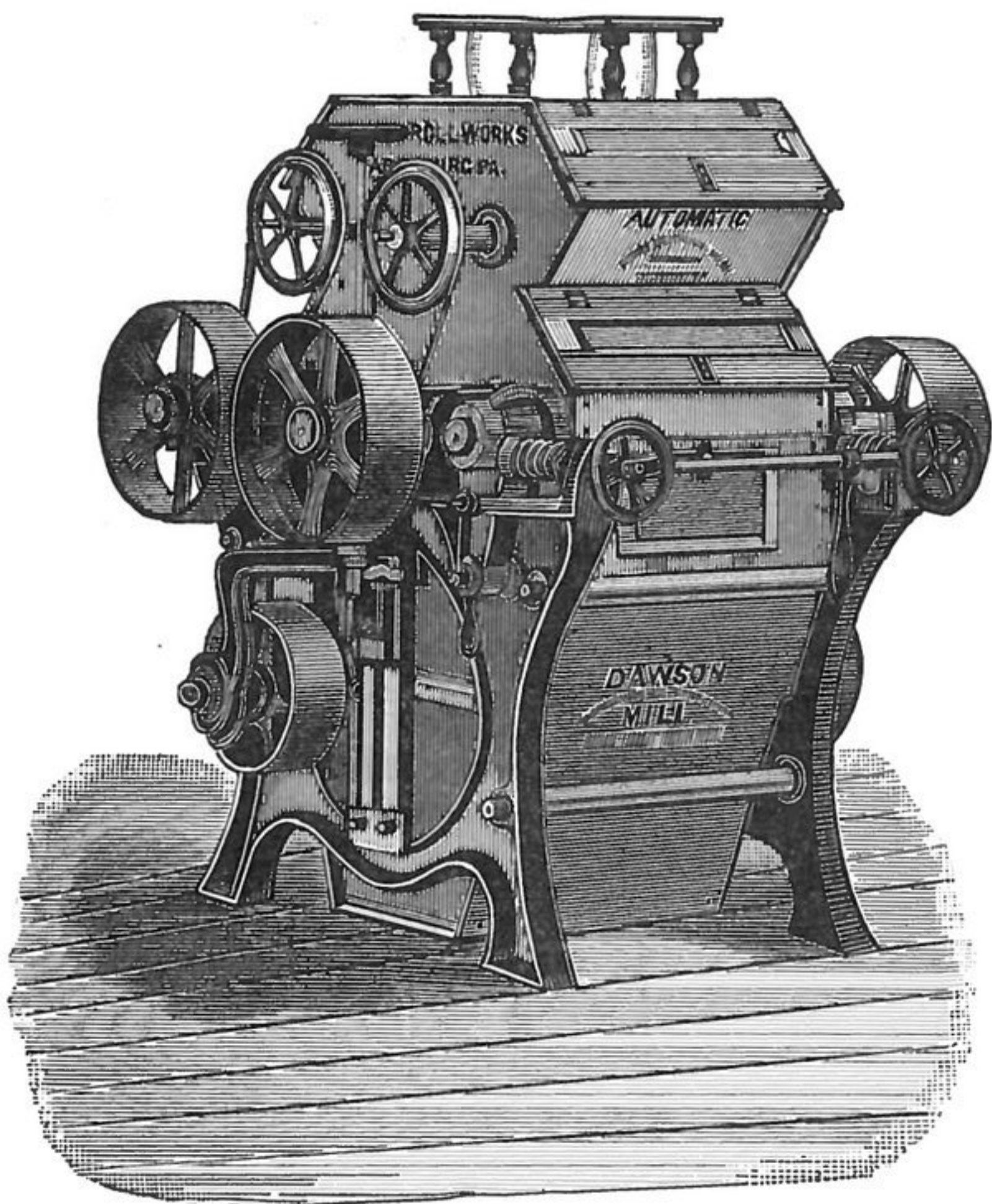
We have had large and extended experience in grinding and corrugating chilled rolls for milling, and have one of the largest and most improved plants in the country for this work, which enables us to meet the most exacting requirements of the trade promptly.

ORDERS AND CORRESPONDENCE SOLICITED.

DAWSON ROLL WORKS CO.

South and Short Streets,

HARRISBURG, PA.



BEST STEEL SAFETY MADE FOR
\$35

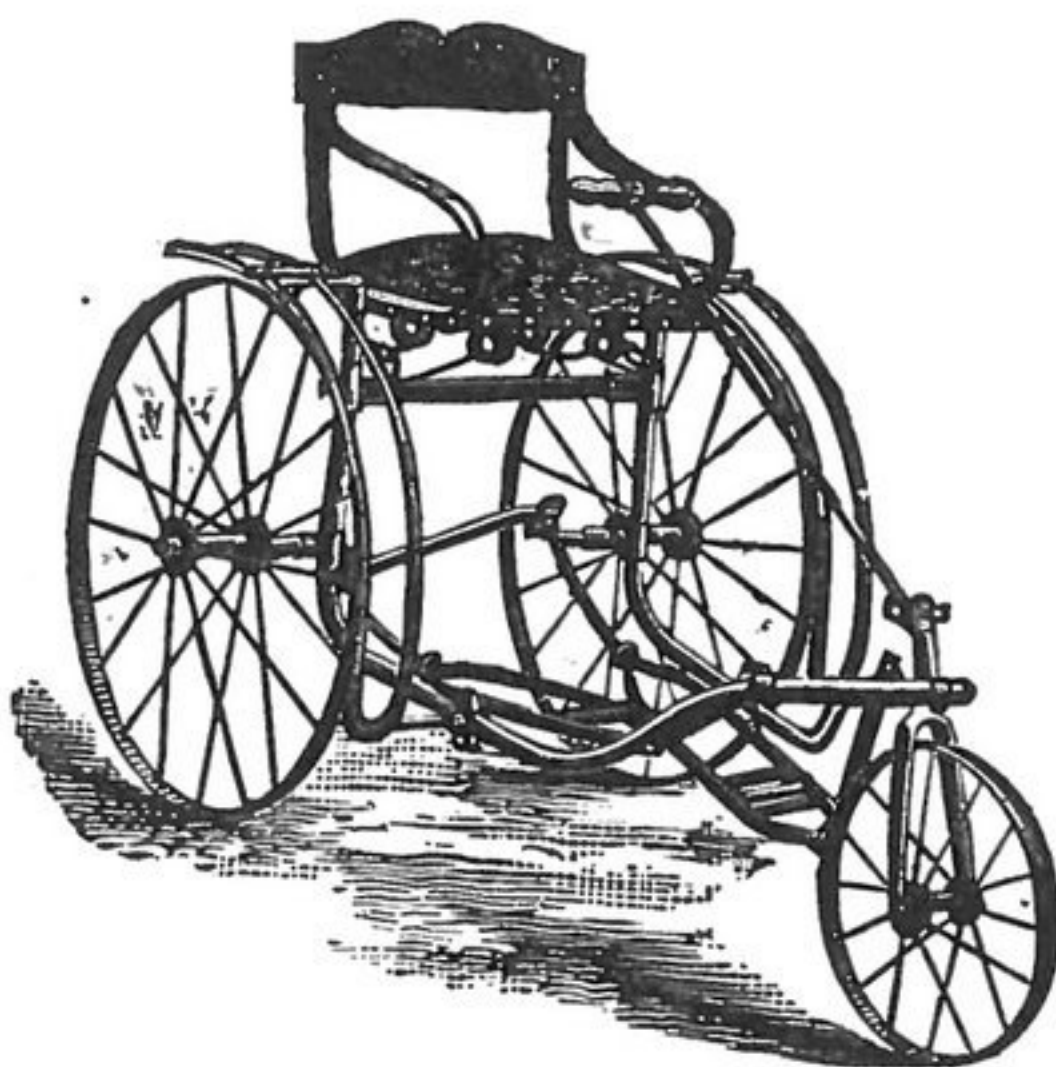
Easiest LADIES' Tricycle Known

Our Tricycles the Only Machine ever Recommended by Physicians for Ladies and Girls of a Delicate Constitution.

THE BUFFALO TRICYCLE CO.

Manufacturers of Ladies' and Girls' Tricycles, Ladies' and Boys' Safety Bicycles, Etc., Etc.

640 Linwood Ave., **BUFFALO, N. Y.**
SEND FOR CATALOGUE AND PRICES.



L. L. WHITLOCK,
Advertising Agent

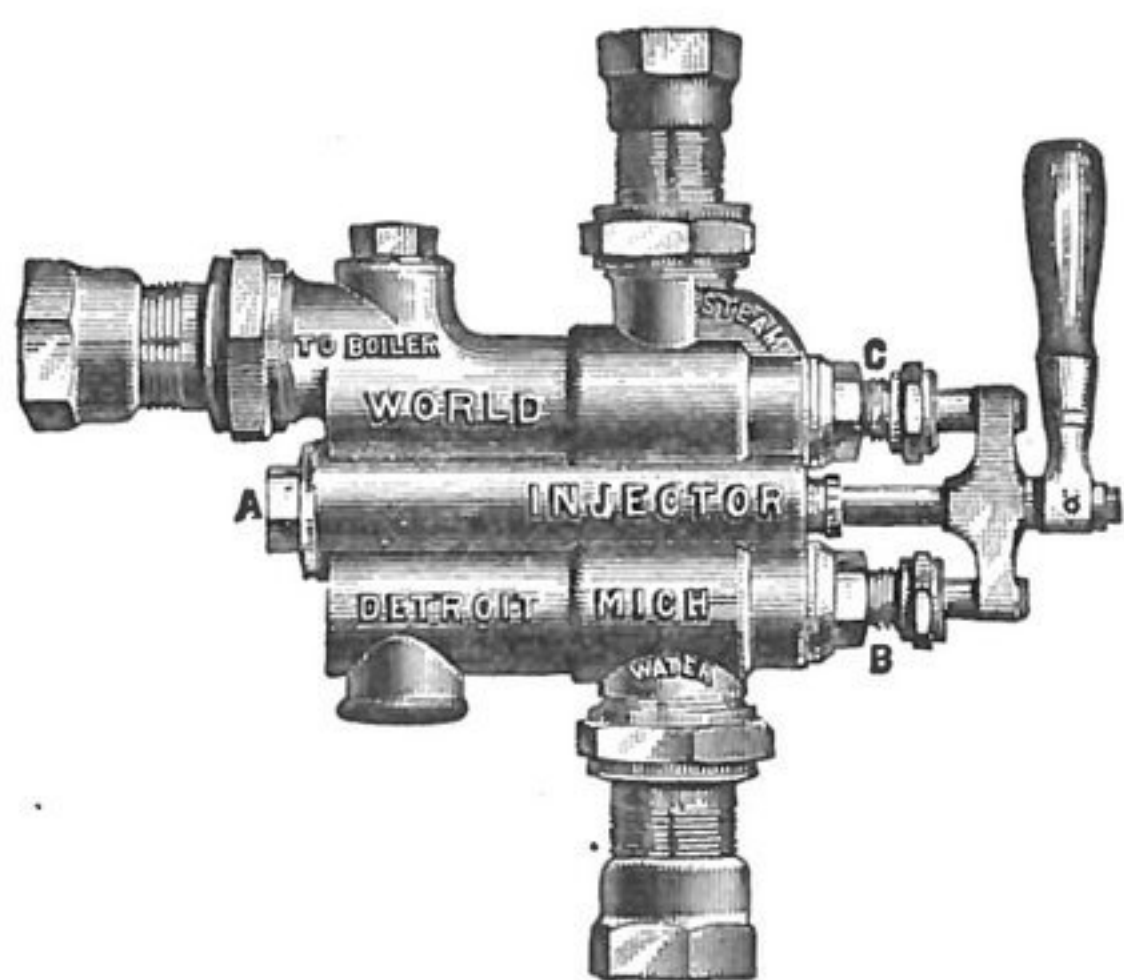
FOR MANUFACTURERS.

TRADE JOURNALS A SPECIALTY.

P. O. DRAWER 5323. *Boston, Mass.*

As Agent for Advertisers instead of Papers, I obtain the Best Rates Possible for my Customers.

*** THE INK ***
WITH WHICH THIS PAPER IS PRINTED
IS MADE BY THE
QUEEN CITY PRINTING INK CO.
CINCINNATI, O.



THE Best is the Cheapest. Whenever you want a Boiler Feeder that will prove reliable under all circumstances, buy the **WORLD** Injector. It is absolutely the simplest and safest to operate and handle of any injector now on the market, **FOR** it is operated by a single lever only. In whatever territory you find these reliable World Injectors on **SALE** they are always guaranteed by the seller.

GOLD is good in whatever part of the world you may travel, and the "**WORLD**" Injector is worth every **DOLLAR** it will cost you. Catalogue containing Price List, valuable tables, and useful facts, figures and information **SENT** to engineers, machinists, and all interested in a perfect working injector, post-paid, upon application, **FREE**

AMERICAN INJECTOR COMPANY,

175 Larned Street West, **DETROIT, MICH.**



PUBLISHED EVERY MONDAY. OFFICES: { Corner Pearl and Seneca Streets,
Buffalo, N. Y.
McFAUL & NOLAN, - - - PROPRIETORS.
THOMAS MC FAUL. JAMES NOLAN.

SUBSCRIPTION.

In the United States and Canada, postage prepaid, \$1.50 Per Year, in advance; remit by Postal Order, Registered Letter, or New York Exchange. Currency in unregistered letter at sender's risk.

To all Foreign Countries embraced in the General Postal Union, \$2.25 Per Year, in advance.

Subscribers can have the mailing address of their paper changed as often as they desire. Send both old and new addresses. Those who fail to receive their papers promptly will please notify at once.

ADVERTISING.

Rates for ordinary advertising made known on application.

Advertisements of Mills for Sale or to Rent; Partners, Help or Situation Wanted, or of a similar character One cent per word each insertion, or where four consecutive insertions are ordered at once, the charge will be Three cents per word. No advertisement taken for less than 25 cents. Cash must accompany all orders for advertisements of this class.

Orders for new advertisements should reach this office on Friday morning to insure immediate insertion. Changes for current advertisements should be sent so as to reach this office on Saturday morning.

EDITOR'S ANNOUNCEMENTS.

Correspondence is invited from millers and millwrights on any subject pertaining to any branch of milling or the grain and flour trade.

Correspondents must give their full name and address, not necessarily for publication, but as a guarantee of good faith.

This paper has no connection with a millfurnishing house and aims to represent the trade without prejudice, fear or favor.

Address all communications

THE MILLING WORLD,
BUFFALO, N. Y.

Entered at the Post Office, at Buffalo, N. Y., as mail matter of second-class.

SITUATIONS WANTED.

Advertisements under this head, 25 cents each insertion for 25 words, and 1 cent for each additional word. Cash with order. Four consecutive insertions will be given for the price of three.

SITUATION WANTED.

Head miller with over 20 years experience want to make a change this spring. Address, A. MILLER, 67 Weaver Alley Buffalo, N. Y. 4t

SPECIAL ADVERTISEMENTS.

Advertisements of Mills for Sale or Rent, Partners Wanted, Machines for Sale or Exchange, etc., etc., cost 1 cent per word, for one insertion, or 3 cents per word for four insertions. No order taken for less than 25 cents for one insertion, or 50 cents for four insertions. Cash must accompany the order. When replies are ordered sent care of this office 10 cents must be added to pay postage.

WANTED, TO RENT.

A good Custom Mill, in a good grain section. Steam or water power. Address, MILLER, P. O. Box 170, Pocomoke City, Worcester County, Md. 252

FOR RENT.

Clinton Mills, at Black Rock, Buffa'o, for rent on reasonable terms, recently repaired and put in good order. App'y to CHAS. DANIELS, over 311 Main Street, Buffalo, N. Y. 6tf

SITE FOR A STEAM FLOURING MILL.

A first-class site for a Steam Roller Flouring Mill at Grant, Ashland P. O., Mich. Correspondence solicited by the GRANT IMPROVEMENT ASSOCIATION, L. E. Mills, Cor. Sec'y. 2326

WANTED.

A company being formed with large capital to operate flouring mill in vicinity of Washington and Baltimore, require a practical miller and first-class manager, who can command ten to twenty-five thousand dollars. For particulars address, HON CHAS. S. BAKER, House of Representatives, Washington, D. C. 2326

FOR SALE.

A cheap and desirable mill property, consisting of a Grist Mill, Saw Mill, two dwelling houses and all other necessary buildings. The mill has a good custom trade, nicely situated in the borough of New Buffalo, Perry County, Pa. For full particulars call on or address JEFFERSON WADE, New Buffalo, Pa. 232

FOR SALE.

Flour and saw-mill with or without farm of 38 acres. Four buhr mill, with machinery and building in most excellent condition. Buildings on farm good. Good run of custom. Can run by water 9 months, also have steam power. Terms easy. On Big Indian Creek, 1/4-mile from Crandall, on Air Line. Mrs. C. KRACKMAN, Crandall, Ind. 36

MILL MACHINERY FOR SALE.

One No. 0 Standard Combined Separator, Smutter and Brush Machine; new, best make.
One 20-Inch Under-Runner Portable Mill, French Buhr Stone, capacity 10 to 12 bushels per hour; new, best make.
One 14-Inch Vertical Feed Mill; best make, new, a bargain.
One No. 6 Dustless Separator; new, a bargain.
One No. 1 Full Rigged Combined Dustless Separator; new, a bargain.
Four Corn Cob Crushers, right or left hand, driven from above or below, best make; capacity 40 to 60 bushels per hour.
Three No. 1 Corn Shellers, capacity 200 to 300 bushels per hour; new.
One No. 2 Purifier. New. Best make. A bargain.
One 20-Inch Portable Mill.
One 18-Inch Double Gear Portable Mill.
For particulars address, FRANK SMITH, care of THE MILLING WORLD, Buffalo, N. Y. 5tf

FOR SALE AT A BARGAIN.

I have a half interest in a Short System Roller Mill which I will sell at a bargain. Don't write unless you mean business. Address, GEO. FOSTER, Wakeman, O. 47

FOR SALE.

One No. 1 Howes, Babcock & Co., Silver Creek, N. Y., Lengthened Scourer and Smutter, nearly new. Address, CHAS. SCHOEPLIN & BRO., Gardenville, N. Y. 46

FOR SALE.

Rare chance, Grist, Saw, Planing Mill, Lumber and Coal Yard, doing good business. Growing village; 15 miles from Washington. Owner wishes to retire. Small capital needed. Terms easy. A. FREEMAN, Vienna, Va. 37

FOR SALE

Whole or part of a 125-barrel Flouring Mill, built entirely new from ground up. Equipped with latest machinery. Side track at mill door. Located in South Michigan. Big local and exchange trade. For further particulars address B. B., care of THE MILLING WORLD. 37

THE milling press of the United States is now definitely divided on the National. The milling papers that think the National should be a really national body are THE MILLING WORLD, the "American Miller," the "Millstone," the "Roller Mill," the "St. Louis Miller" and the "Millers' Review." The only milling paper that thinks the National is all right is the "Modern Miller." Rather a suggestive division!

ONE of the funniest things in Brother Hall's new enthusiasm for the National is his hatred for the "Yahoo," the pet of the National, and his affection for Secretary Barry, who nearly lost his head at the command of the "Yahoo" in the late Minneapolis convention of the National. It looks thus: The National is all right. Secretary Barry is all right. The "Yahoo" is all wrong. Yet the "Yahoo" was almost able to compel the National to deliver to it the head of Secretary Barry in a (dis) charger! What a comical situation!!

It is announced quite often from Chicago that Mr. B. Peters Hutchinson, the eminent market manipulator and gambler-annihilator of that city, familiarly known as "Old Hutch," is going to "retire" from the arena of speculative business. Possibly his retirement will be contemporaneous with that of Satan, who is reported to be about to abdicate his throne in Sheol, but neither event is slated for the propinquitous saccharinated subsequently. Bulls and bears, lambs and kids, fools and suckers yet unborn will, in countless throngs, in time to come writhe under the speculative torture machinery of Chicago's own and only "Old Hutch." Chicago without him would be Hamlet with Hamlet left out.

THE fake daily newspapers see or smell the "English Syndicate" in every real or rumored business transaction in the United States. By actual computation, based on the figures published in the fake dailies during the past eighteen months, the everlasting "English Syndicate" has invested about \$999,000,000,000,000 in the United States. The "English Syndicate" chestnut is still young, but its whiskers are already of regulation dime-museum and circus-astorisher length and luxuriance, and it would be a relief to the public to allow the fakish breezes to blow through the aforementioned whiskers in silence for a year to come. Chestnuts for three meals a day for ten years may be all right, but for a constant meal they become monotonous, unpalatable, indigestible and nauseating. Messrs. Fakists, give the "English Syndicate" a long and much-needed repose.

THE Millers' National Association is at it again. A meeting of the executive committee of that organization was held in Chicago on the 15th of September, and the result of their deliberations is shown in the following announcement made on the 16th: "The Millers' National Association has issued a letter addressed, to all its members, asking that they at once send their protests to their Congressmen against Senator Sherman's amendment to the tariff bill, which reads as follows: 'That in no case shall drawbacks (on imported merchandise which has been imported into the United States) be allowed, where the claim amounts to less than \$10.'" Doubtless this manifesto will make the Senators and Representatives tremble in their boots. The thunders of "all" the "members" of the National will not startle Washington. The National "all" is not impressive. Flour-barrels can not influence votes in Congress, whatever may be their effect in the conventions of the National.

THE "KEYSTONE" SIX-ROLLER MILL.

Herewith is illustrated the "Keystone" 6-roller mill, built by the J. B. Allfree Company, of Indianapolis, Indiana. This roller-mill is designed for corn and other cereals. It has entire belt-drive, an absolutely positive differential, and simultaneous setting by the movement of the lever. Both belts have independent tighteners. The fixed rolls are perfectly aligned. It is a dust-tight, light-running machine. It has practical instantaneous tramming, automatic vibratory feed, and the rolls are easily removable. From the two cuts the practical miller can gain a good idea of the mill. The presence of a considerable amount of foreign matter in corn has been an obstacle to the successful use of rolls in the milling of this cereal. The results of several years of experimenting revealed that a mill to cope with this obstacle must embody great strength, powerful drive, positive differential, both simultaneous and independent setting, great rigidity and simple and rapid tramming. The "Keystone" 6-roller mill is placed before the trade by the manufacturers with the assertion that it embodies all these features. Any of the rolls may readily be removed without dismantling the bal-

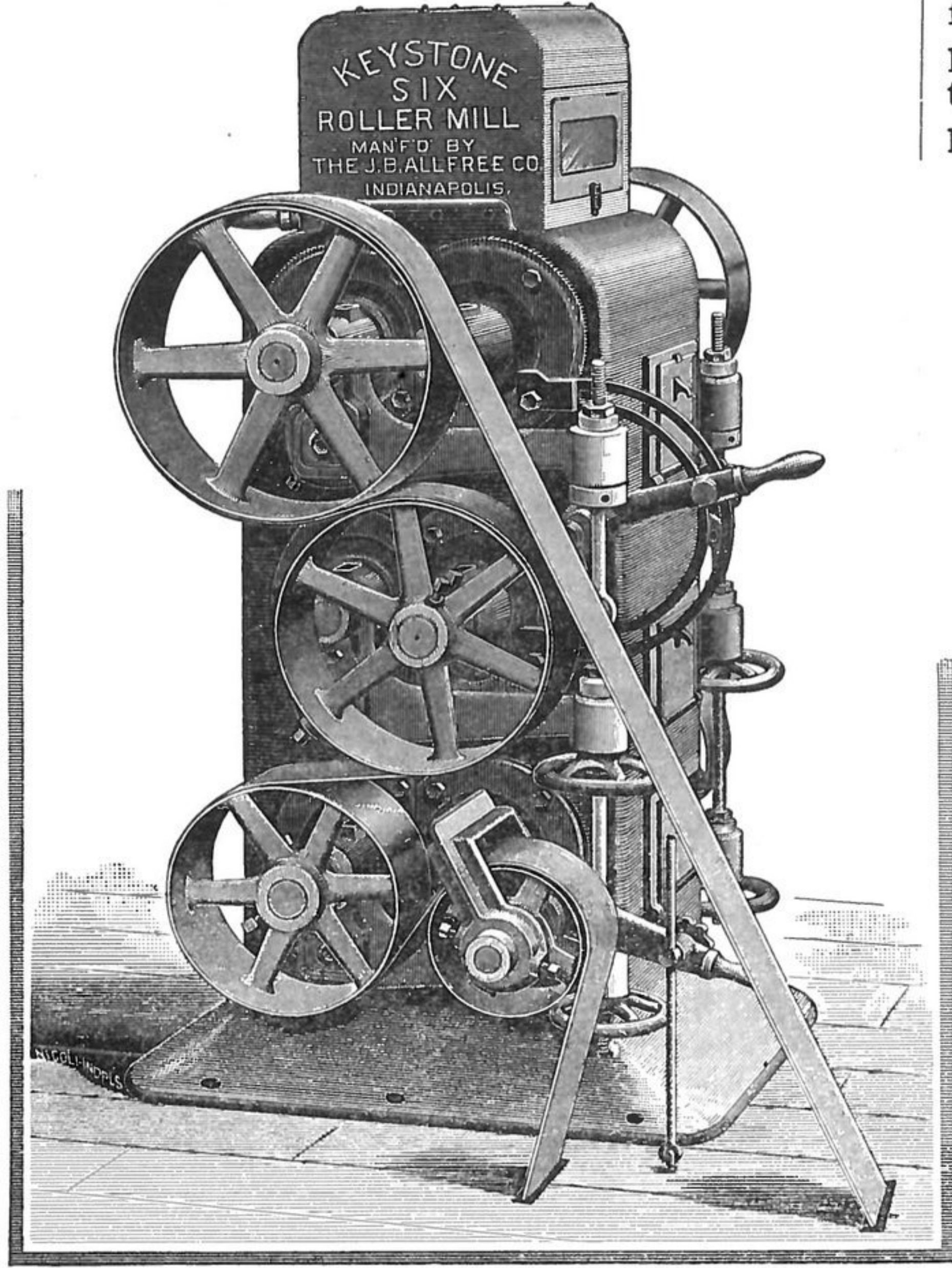


FIG. 1.—THE "KEYSTONE" 6 ROLLER-MILL.

ance of the machine, and can be recut until completely worn out. The machine has drawing pulleys 12, 14 and 16 inches in diameter, respectively, and, being a belted mill, requires two pulleys on the line-shaft. The users of the first mill of this class built are Messrs. John D. Church and Brothers, of Stanberry, Missouri, who say of it: "We are highly pleased with it. We can grind 12 to 15 bushels per hour, and grind it extra-fine round meal. When we grind a little higher we can grind from 20 to 25 bushels, and still make good round bread-meal. In making feed-meal we can grind anywhere from 30 to 50 bushels per hour, and from 50 to 60 of coarse feed. Your mill is easily adjusted and runs light for the amount it will grind. Our meal is taking the lead of meal made upon other rolls. We can cheerfully recommend your 6-high corn-mill to any one wishing a corn-mill, as it is a daisy and no mistake."

THE WORLD'S WHEAT SUPPLIES.

According to the latest figures that seem at all reliable, the wheat reserves in the world are the lightest since 1880,

and the surpluses and import requirements of the various countries are as follows:

	Estimated surplus, 1890-91. Bushels.	Estimated requirements, 1890-91. Bushels.
Russia.....	88,000,000	.....
North America.....	88,000,000	.....
Southeast Europe.....	76,000,000	.....
India.....	24,000,000	.....
Southern Hemisphere.....	20,000,000	.....
Other countries.....	8,000,000	.....
United Kingdom.....	.....	156,000,000
France.....	.....	40,000,000
Italy.....	.....	24,000,000
Belgium.....	.....	24,000,000
Germany.....	.....	20,000,000
Spain and Portugal.....	.....	14,000,000
Holland.....	.....	13,600,000
Switzerland.....	.....	8,000,000
Greece.....	.....	4,000,000
Scandinavia.....	.....	2,800,000
West Indies and others.....	.....	20,000,000
Total.....	304,000,000	326,400,000

These totals show that the supply is 22,400,000 bushels below the demand. Of course it must be taken into account that the Southern Hemisphere crops will fall due again in the period covered by these estimates, but, notwithstanding that fact, the situation seems to call imperatively for higher prices for wheat and wheat flour than are ruling now. Since these figures were compiled there has been a decrease in prospect in almost every Northern Hemisphere wheat coun-

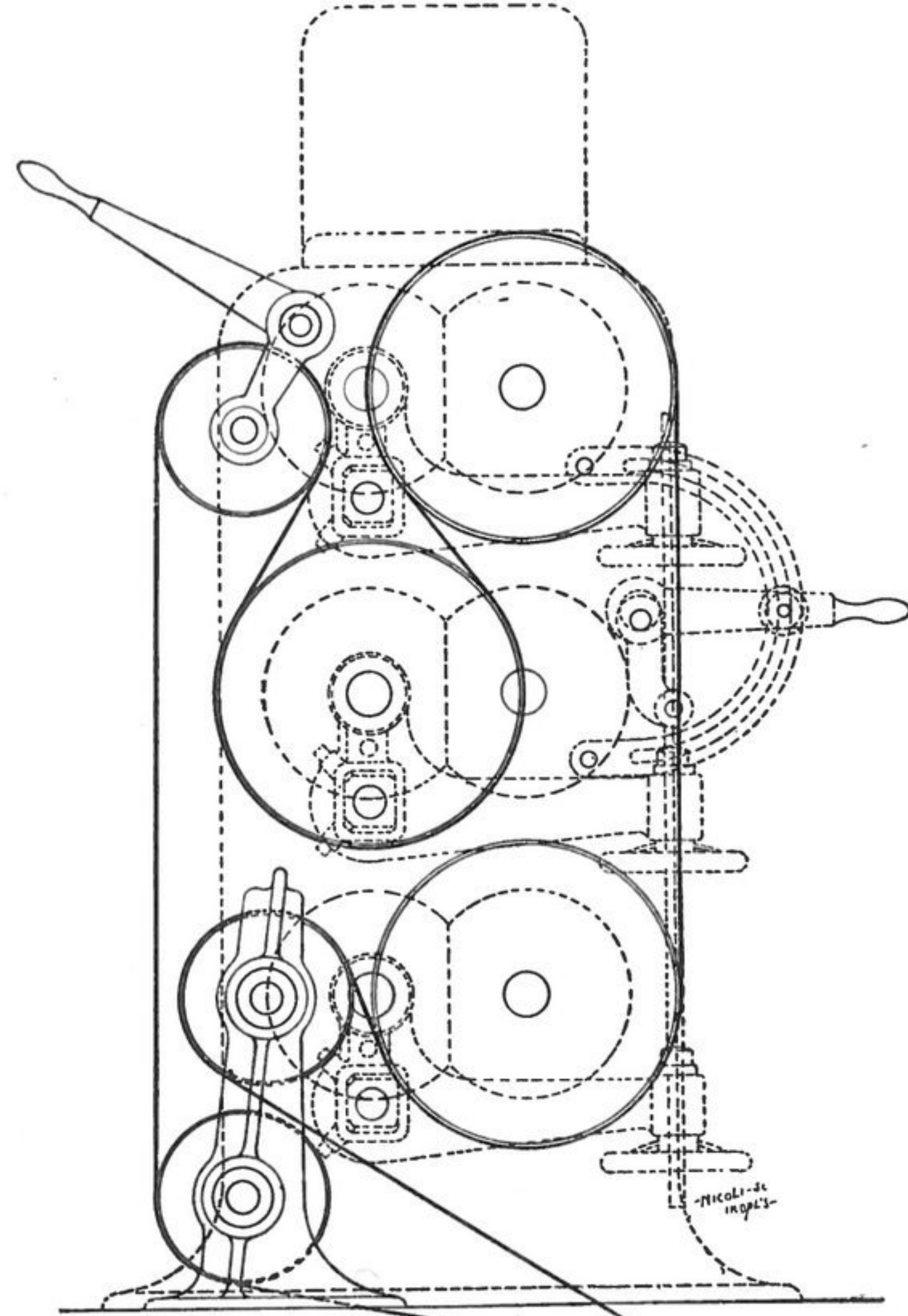


FIG. 2.—SECTIONAL VIEW.

try. Russia is disappointing in both quantity and quality and may export only 60,000,000 bushels. North America may spare 100,000,000 bushels. Southeast Europe will probably export 66,000,000. The Southern Hemisphere can not be depended upon for more than 20,000,000 bushels for the next crop. In the importing countries the demands have grown larger. Every country on the list will require more than the above computation gives, as most of them have gone back in yield and condition since these figures were sent out. We believe in higher prices for the twelve months to come.

TIME AND MONEY WASTED.

A. B. SALOM.

Capitalists, laborers and all other citizens are equally interested in that form of labor troubles which is called the "strike." Capitalists are interested, because the strike means loss, annoyance and inconvenience for them, the laborers are interested, because they are the men who strike, and because they lose the most directly, seriously and hopelessly by the strike, and the general public are interested,

because on them falls the infinity of petty discomforts that grow out of a stoppage of business in any important line. There is but one conclusion concerning the strike possible to observers who have kept track of strikes, their causes, their duration, their effects on the community and their general results in the United States, and that conclusion is that strikes are a failure, that they waste time and money, that they in the end benefit nobody and damage everybody, and that the so-called "success" of a strike here or there is generally a failure that is experienced by degrees rather than in sudden entirety. Governmental investigation shows what the strikes in this country have cost in the past, and the showing ought to be placed in the hands of every laboring man in the United States.

Taking dollars and cents as a basis for judgment, recent history makes important revelations concerning the strike. The government bureau of labor publishes a report by its chief, Carroll D. Wright, covering the strikes in this country in the years 1881 to 1886, inclusive. Those six years may be taken as an example of the value of the strike reduced to dollars and cents. Mr. Wright's report shows that, during the six years mentioned, there occurred in the United States 4,000 strikes and 2,200 lockouts, a total of 6,200 troubles for the 1,879 working days in the period, an average of over three strikes a day. These 4,000 strikes closed over 22,000 industrial establishments and threw 1,330,000 laborers out of employment, while the 2,200 lock-outs deprived 160,000 laborers of work and wages. The average duration of the strikes was 23 days, and of the lock-outs 28 days, implying for the strikes a loss of 30,600,000 days of work, and for the lock-outs 4,480,000 days, a total of 35,080,000 days of labor and the wages that should have been earned during the wasted time. As most of the work in these establishments was of the skilled order and commanded wages ranging from \$1 to \$4 or more per day, it is reasonable to infer that \$1.50 a day would be a fair average, and at that average the striking laborers lost at least \$52,000,000 in wages. Besides this, the employers lost \$30,000,000 by the strikes and \$8,000,000 by the lock-outs, making \$38,000,000 lost by the capitalistic side. The total loss to both sides was about \$90,000,000 for the six years, an average of \$15,000,000 a year lost through this form of protest or agitation.

Any reader can see at once that this enormous loss is irrecoverable. The time lost can never be regained, and consequently the money goes with it. Nor does this computation measure the actual direct loss to the strikers. Were it possible to assess the \$15,000,000 a year upon the community at large, the burden to the individual would be very slight. Unfortunately for the strikers and fortunately for the community, the loss can not be so assessed. It is assessed chiefly and directly upon the strikers. In the six years covered by Mr. Wright's report the loss was borne by less than 1,500,000 members of the various organizations that caused or sustained the strikes. The \$52,000,000 represent the cost of strikes to strikers in six years. This total has nothing to do with the \$38,000,000 lost by the capital concerned, nor with the indirect, but large, losses suffered by other branches of labor which, though not engaged in the strikes, were rendered idle by the strikes and consequently had to lose their time and wages. These indirect losses from the strikes would amount to many millions. The gains, or results, were small returns for such an expenditure. Of the total number of strikes, 51 per cent. failed absolutely, 10 per cent. succeeded in avoiding absolute defeat, and the remainder claimed to be successful. It would take many years of hard labor to replace the losses and recover the defeats.

Singularly, such losses and defeats do not seem to teach laboring men wisdom. The years succeeding those named by Mr. Wright have been full of troubles and strikes, of riot and boycott, of new and arrogant organizations with senseless pretensions, and of general recklessness. In the State of New York alone, according to the report of the Albany bureau of labor statistics, the five years ending with 1889 saw 9,384 strikes, involving 334 trades and industries, 5,223 separate establishments and 173,729 laborers. Some of these

strikes are said to have been "successful," but no one has the hardihood to claim that the strikers have really gained more than they lost, and even the strikers themselves fail to understand the moral effect of their acts. They seem not to know that public sympathy has been estranged from them, and that their lawlessness and disregard of the interests of others have already crystallized in a strong feeling against them. How strong that feeling is may be judged from the fact that it has caused the legislature of the State of New York to pass stringent laws covering the acts of lawlessness committed by strikers. For instance, the New York Penal Code of 1884, in Section 168, provides that:

If two or more persons conspire, either to prevent another from exercising a lawful trade or calling, or doing any other lawful act, by force, threats, intimidation, or by interfering or threatening to interfere with tools, implements, or property belonging to or used by another, or with the use and employment thereof; or to commit any act injurious to the public health, to public morals, or to trade or commerce, * * * Each of them is guilty of a misdemeanor.

Furthermore, in the same Penal Code, it is declared in Section 653 that:

A person who, with a view to compel another person to do or to abstain from doing an act which such other has a legal right to do or to abstain from doing, wrongfully and unlawfully, 1. Uses violence or inflicts injury upon such other person or his family, or a member thereof, or upon his property, or threatens such violence or injury; or, 2. Deprives any such person of any tool, implement, or clothing, or hinders him in the use thereof; or, 3. Uses or attempts the intimidation of such person by threats or force, is guilty of a misdemeanor.

Similar laws have been passed in other States, and to-day the labor organizations, whose "leaders" advocate strikes and disorder, stand face to face with laws that will wipe them out. The laws exist, and they will be exercised at the behest of an indignant public whenever the lawless and reckless "leaders" shall carry affairs beyond a certain point of exasperation. When the "walking delegate" is arrested and punished for violating the laws against conspiracy, he will disappear. Law-breakers are generally cowards, and conspirators are always the most cowardly of all cowards.

Labor to-day in the United States can show on one side of its history as an "organized" force enormous losses and wastage of time, money and labor, together with legislation that arms the public against all criminality that may be employed in future labor troubles. On that side strikes have resulted in loss and hostile legislation which contains the sentiment of the public. On the other side, what can it show? The demagogues who mislead labor have only to invite disaster to secure it in full measure and with destructive swiftness. When the sleek, fat, lazy, well-dressed, irresponsible, do-nothing, good-for-nothing "supreme head" of this or that order issues his orders that are meant to destroy the property, check the business and decrease the privileges of others, he and his fellow-conspirators are amenable to the laws, and his defiance and infractions of those laws will promptly cease when once he is made to feel their crushing force. Up to this time the history of the strike shows only a waste of time and money, the enactment of severe laws and the loss of public sympathy on the part of the strikers. It has been folly, criminality and recklessness all the way through. It is time for labor to halt and start on another line of operation. A century of strikes will not secure to labor an 8-hour day with 10-hour pay, nor exemption from penalty for criminal acts, nor the power of managing the private affairs of capital against the wishes and the interests of capital. Let laborers dismiss their hired demagogues and begin to think for themselves, and let their thinking be in line with law, reason and equity.

CANADIAN BOOMING OF MANITOBA.

Canadian boomers of Manitoba and adjoining provinces will insist on making comparisons with the States North Dakota, South Dakota and Minnesota, and on ignoring or grossly misrepresenting geographical and agricultural facts. For instance, here is a paragraph from a letter written by T. A. Patrick, in Saltcoats, Assiniboia, on the 30th of August, and published in the "Empire," Toronto, on the 9th of

September, in which the boomer of the Northwest Territories says: "It may be interesting to your readers to know that Birtle is in the northern part of Manitoba and Saltcoats 144 miles north of the international boundary. Men are so prone to associate low temperature with high latitude, that they have preferred settling the blizzardic, cyclonic, frost-bitten Dakotas to the favored fertile plains of Manitoba and the territories, where the lower altitude more than compensates for the higher latitude. Immigration Agent Stemshorn, of Regina, whom the Dominion Government sent to Dakota, reports South Dakota crops a failure, also those of North Dakota until the districts adjacent to Manitoba are reached. Had he journeyed due north from the boundary to the country along the Manitoba and Northwestern railway, where wheat fields are producing 40 bushels of unfrozen wheat to the acre, and new potatoes, because of their abundance, are selling for 20 cents per bushel, he would have seen what eastern Canadians will not realize, viz., the great advantages northern Manitoba and northern Assiniboia possess over any country to the south of them for the production of the most paying products of the farm."

Commenting on this letter, the "Empire" says editorially: "The letter from Dr. Patrick, of Saltcoats, Assiniboia, regarding the agricultural capacities of Manitoba as compared with the States to the south, directs attention to a fact often overlooked entirely in popular judgments as to the climate and productiveness of our own prairie country. Elevation has as much to do with climate, and consequently with production, as latitude. In the comparatively low altitude of our Northwest lies much of its peculiar adaptability to the growth of grain. We in Ontario harvest our spring-sown grain in July or in the first half of August, according to season, latitude and difference in elevation. But most of our wheat-growing territory lies between the parallels of 42° and 45°, or the latitude of southern France and middle Italy. Birtle, in northern Manitoba, this year, a by no means exceptionally early season, either in sowing or harvesting, began its harvest on the 21st of August, or but a few days later than we in Ontario on the uplands of Wellington and Grey, near the 44th parallel. But Birtle is near the 52d, and 550 miles further to the north. Making allowance for this great difference in distance from the equator, the slight difference in time of ripening suggests not merely the sunshine and heat with which our Northwestern prairies are usually blessed in summer, but also the difference which elevation above the sea may produce. In the far west the same differences in elevation and in their effects hold good. Santa Fe, New Mexico, has almost the same summer temperature and a winter but little milder than most of southern Ontario, but subject to greater unseasonable extremes. This is due to the greater elevation of the plains of that territory. The Winnipeg plain of Manitoba is not half as high as the northern part of Iowa, a fact which tells in the comparatively small difference of climate between the two countries, either in summer or winter. Much of Minnesota and Dakota lies at an altitude two to three times as great as that of the Red river plain in our Northwest, and the difference in latitude being comparatively small, the explanation is obvious why these sections of the American Northwest are affected by damaging summer frosts when our territory immediately to the north escapes. But in our own Northwest another cause plays an important part in producing a favorable climate. The level of Assiniboia and Alberta in most parts is 3,000 to 3,500 feet lower than western Nebraska. This difference of elevation in our favor is equal to many degrees of latitude, and practically brings the two countries botanically to within a few hundred miles of each other."

Even booming can not be offered for so gross a misrepresentation as this, which the "Empire" makes with the evident intention of deceiving immigrants concerning the serious and incurable disadvantages of Manitoba. Such exaggeration and such comparison call for correction. Here are some facts of the corrective sort: 1. The Patrick letter is falsehood principally, with imbecility a good second. His "latitude" and "altitude" contention followed out would

make the Arctic shores of North America, Europe and Asia open countries the year around, while the higher lands south of them should be icy deserts. The reverse is true. The great rivers flowing northward are open in their higher parts and frozen shut in their lower parts the greater part of the year, the result being the overflows and the icy tundras of the Arctic shore. 2. The trend of the United States rivers is against the contention of the Canadian boomers. The slope that includes a part of Manitoba begins about at the boundary line of North Dakota and South Dakota, the divide being between Big Stone Lake and Lake Traverse, which are within a mile of each other, separated only by a marsh. Rivers flow from these lakes, one down the northern slope towards Manitoba, the other down the southern slope into Minnesota. 3. Every farmer knows that in frosty nights it is the lowest part of his farm that receives the worst damage. Often the low-lying parts will be frost-swept, and the higher parts will be unscathed. This principle extends from the farm to the township, to the county, to the State, and to the geographical area. This means that, admitting that Manitoba lies lower than the Dakotas and Minnesota, Manitoba is more liable to frost damage than those three States. History, last year, and the year before last, proves that to be the case. This year frost was general throughout Manitoba on August 21st and 22nd, and was seen in very few and small parts of the three States south. 4. The 40-bushels-of-wheat-to-the-acre lie well stuck to can not hide the fact that this year the 750,000 acres sown to wheat in Manitoba are not expected to yield over 20,000,000 bushels at most, while the actual yield is likely to be only 12,000,000 to 14,000,000, with a large percentage of badly shriveled grain acknowledged in Winnipeg by the dealers; nor can that lie hide the fact that last year Manitoba's wheat crop was a failure so disastrous that the Winnipeg board of trade forgot to mention the beggarly total in their report for 1889. The total was probably 5,000,000 to 6,000,000 bushels. In 1888 the Manitoba crop of wheat was wiped out on August 14th and 15th by frost, the damage in that province being proportionately greater than in the three States south. The 40-bushel lie may deceive immigrants into settling in Manitoba, but it can not keep them there. 5. The potatoes at "20 cents per bushel" is doubtless one "of the most paying products of the farms" in Manitoba. 6. The Dominion immigration agent of course found some ruined crops in the three States he visited, but he will not publish the fact that either one of those States has grown more wheat this year than the whole Dominion of Canada. An exceptionally late and unfavorable season has reduced the crop of those States to less than 100,000,000 bushels. 7. The single fact that farmers by the hundreds have left the Canadian for the United States Northwest is the crucial fact against the Canadian boom claim. 8. The blizzards, cyclones and frosts are quite as numerous in Manitoba as in the United States, but they are not reported by the Canadian newspapers, as such reports would not look or sound well coming from a banana belt like that of Manitoba and Assiniboia. The concealed drawbacks do not help to populate Manitoba, nor do the fully and frankly revealed drawbacks prevent the populating of North Dakota, South Dakota and Minnesota. 9. The Manitoban misrepresentations have systematically failed to help Manitoba or to hurt the Northwestern States, and the failure has become chronic. Settlers are not going to the Arctic Circle in search of comfortable climate. The drain from Canada to the United States will continue so long as there are Canadians who have either enterprise or money enough to induce or enable them to move into the United States. There are very nearly as many Canadians in the United States to-day as there are in Canada, a fact the boomers should mention in their falsifying publications.

THE CASE COMPANY'S MILLS.

Recently, at the convention of the National Association of British and Irish Millers, Mr. John Murray Case, formerly of Columbus, Ohio, now living in London, England, presented a paper on the outlook for British millers in comparison with the millers of the United States. That paper was

reprinted in full in THE MILLING WORLD, and its contents are familiar to our readers. After its appearance in our columns, it was taken up by the exporters' journal in Minneapolis, which pretends to cater to the millers by leaving them entirely alone, and that journal made it the text for a sneer at the Case Manufacturing Company, of Columbus, Ohio, which was founded by Mr. Case. The Minneapolis journal asserted that Mr. Case knows nothing about the "commercial side of milling," and that his "experience in the United States has been limited to the manufacture of machinery and the sale of the same mostly to small mills in the back-woods." Those who understand the spirit and motives of the Minneapolis journal, know that such an utterance is a direct slur on the famous house established by Mr. Case, which does not see any value in an advertisement published in an exporters' journal that has no circulation among millers. Believing the slur to be a wholly malicious and uncalled-for one, THE MILLING WORLD has secured a partial list of mills furnished by the Case Manufacturing Company during 1888 and 1889, which is presented herewith. Mr. Case severed his connection with the company on January 1st, 1889, and some of the flour-mills built by the company during 1888, the last year in which he participated in its management, are named in the following list, showing both location and capacity:

FLOUR-MILLS IN 1888.

Name and City.	State.	Ca'y bbls.
Gilman & Gold, McArthur.....	Ohio	50
Stevens & Ratcliff, Chillicothe.....	Ohio	40
B. Beck, Beck's Mills.....	Ohio	50
Garrett Reublin, Elyria.....	Ohio	60
Boehm & Yanquill, Monroeville.....	Ohio	60
Stiles & Van Gorder, Cleveland.....	Ohio	50
M. J. Rutherford, Langsville.....	Ohio	40
J. C. Landes, Pricetown.....	Ohio	50
T. C. Adams, Castalia.....	Ohio	125
Oyster & McCullum, Mt. Union.....	Ohio	50
Jeremiah J. Miller, Charm.....	Ohio	40
James Emmett, Waverly.....	Ohio	75
King & Beery, Lindsey.....	Ohio	50
Porter & Son, Newton Falls.....	Ohio	30
James Smith, New Milford.....	Ohio	50
Courtright & Sargeant, West Lafayette.....	Ohio	50
Smithurst & Thompson, Warren.....	Ind.	50
E. Wood, Decatur.....	Ind.	50
Oxford Milling Co., Oxford.....	Pa.	75
R. L. Collins, Crittendon.....	Ky.	50
Williams & Lewis, Franklin.....	Ky.	30
Davis & Bingham, Marion.....	Ky.	40
Potts Bros., Lancaster.....	Ky.	40
Rebok & Bear, Lovington.....	Ill.	75
Charles Schacht, Pocahontas.....	Ill.	75
Knedler Bros., Long Grove.....	Ill.	50
R. T. F. Dodds, Delton.....	Mich.	100
A. H. Armitage, Casnovia.....	Mich.	50
Kinney, White & Kinney, Cross Plain.....	Tenn.	75
W. L. McCoy, Treadway.....	Tenn.	30
Jackson Bros., Stockton.....	Kan.	50
A. H. Mischke, Long Island.....	Kan.	40
Indianola Mill Co., Indianola.....	Neb.	50
Charles Seely, Lushton.....	Neb.	100
William Croucher, Palmyra.....	N. Y.	40
A. W. Graves, Byron Center.....	N. Y.	30
Clark & Eccles, Ogden City.....	Utah	100
M. W. Merrill, Richmond.....	Utah	75
J. H. Johnson & Son, Calamine.....	Wis.	70
B. F. Royston, Jameson.....	Mo.	50
Verliff & Otson, La Veta.....	Colo.	40
R. Wood, Rudolph.....	Va.	40
Gouldthrite & McCrea, Lee.....	Dak.	40
Rhodes & McCoy, Cottageville.....	W. Va.	50

During the same year the Case Manufacturing Company built a considerable number of corn-meal mills, among which are the following:

CORN-MEAL MILLS IN 1888.

Name and City.	State.
R. J. Anderson & Son, Portsmouth.....	Ohio
Hawk & Buchill, Canton.....	Ohio
Newell Bros., Cleveland.....	Ohio
T. C. Adams, Castalia.....	Ohio
P. Bending (agent), Columbus.....	Ohio
J. S. Smith, New Milford.....	Ohio
S. E. Darby, Vigo.....	Ohio
Lewis & Williams, Franklin.....	Ky.
J. G. Patton & Co., Catlettsburg.....	Ky.
Charles Schacht, Pocahontas.....	Ill.
Des Plaines Valley Co., Lockport.....	Ill.
B. Miller & Co., Hulls.....	Ill.
Black Bros., Blue Springs.....	Neb.
C. Seely, Curtis.....	Neb.
Smith, Granger & Cantel, Gallatin.....	Tenn.
M. S. Fisher, Bonham.....	Tex.
Newberg & Lager, Sacramento.....	Cal.
Clark & Eccles, Logan.....	Utah
Comer & Trapp, Anniston.....	Ala.
Dehner & Wuerpel M. B. Co., St. Louis.....	Mo.
R. Wood, Rudolph.....	Va.
J. W. Shadewald & Co., Minneapolis.....	Minn.
Utz & Curtis, Topeka.....	Kan.
Washington Flour & Feed Co., Washington.....	D. C.

During 1889 the Case Manufacturing Company kept up to their splendid record by building an increased number of flour-mills. Among the mills built by them are the following:

FLOUR MILLS IN 1889.

Name and City.	State.	Ca'y bbls.
H. Resoner & Co., Cheshire.....	Ohio	100
J. V. Vanderslice, Garrettsville.....	Ohio	40
H. O. Wylie, New Concord.....	Ohio	40
Raney, Sheal & Co., Steubenville.....	Ohio	150
David Litten, Brookville.....	Ohio	50
J. Q. A. Vale, Vale's Mills.....	Ohio	50
O. C. Shepherd, Medina.....	Ohio	75
B. Beck, Beck's Mills.....	Ohio	40
Barkhurst & Craven, Mt. Pleasant.....	Ohio	35
P. C. Young, Wellsville.....	Ohio	40
Vigo Mill Co., Vigo.....	Ohio	30
Diehl & Co., Mowrystown.....	Ohio	40
Putman & Son, Wilmot.....	Ohio	75
R. T. Mills, Cardington.....	Ohio	50
Okey & Sloan, Stafford.....	Ohio	50
Stanley & Hawkins, Alliance.....	Ohio	90
Farmer's Milling Co., Tunnel Hill.....	Ohio	40
Oblinger & Spiery, Lewisville.....	Ohio	40
Shriver Bros. & Rinehart, N. Lexington.....	Ohio	50
W. D. & T. E. Wilson, Osgood.....	Ind.	60
Christ, Purcel & Barker, Pulaski.....	Ind.	40
M. D. Brown & Son, Bluffton.....	Ind.	50
Frazier & Bowser, Saxonburg.....	Pa.	60
W. M. Birely, Vanceburg.....	Ky.	60
William Rankin & Son, Rankin.....	Ky.	30
Childs & Tucker, Somerset Center.....	Mich.	40
A. H. Van Riper, Cassopolis.....	Mich.	50
T. J. Elam, Murfreesboro.....	Tenn.	50
E. Keely, Dyersburg.....	Tenn.	40
Fisher, Polly & Co., Wauneta.....	Neb.	75
Spaulding Milling Co., Spaulding.....	Neb.	50
Richmond & Smith, Canandaigua.....	N. Y.	100
Peter Snyder, Manlius Station.....	N. Y.	50
Hill & Bradley, Savannah.....	N. Y.	50
J. E. Van Natta, Ithaca.....	N. Y.	50
Frank Ladd, North Pembroke.....	N. Y.	50
J. R. Cunningham, Coffeysburg.....	Mo.	35
G. W. Wrightman, Walnut Grove.....	Mo.	50
Charles Holdhoffer, Kahoka.....	Mo.	50
Robb & Kelly, Talmage.....	Mo.	40
A. B. Shellman, Weatherby.....	Mo.	40
Sternberg Mill & E. Co., Boulder.....	Colo.	125
J. C. Schwarz, Buena Vista.....	Colo.	30
Arnold & Johnson, High View.....	Va.	35
G. W. Hindman, Holiday's Cove.....	W. Va.	40
Chaney & Carney, Littleton.....	W. Va.	50
D. K. Hood & Son, Jackson C. H.....	W. Va.	75
Aiken & Cline, Yellow Springs.....	W. Va.	40
Chase & Shinn, Chase.....	W. Va.	50
C. Barker, Barnardsville.....	N. J.	30
William Bartley & Son, Bartley.....	N. J.	40
J. D. Tarrant & Son, Newberg.....	Ore.	30
D. E. Swank & Co., Aumsville.....	Ore.	65
H. H. Beck & Co., Reno.....	Nev.	100
Charles W. Anding, Winona.....	Minn.	40

The corn-meal mills built by the company during the same year included the following:

CORN-MEAL MILLS IN 1889.

Name and City.	State.
J. S. Smith, Circleville.....	Ohio
H. Resoner & Co., Cheshire.....	Ohio
C. A. Dillan, Santa Ana.....	Cal.
Carter & McMichael, Hardin.....	Mo.
Bridgewater Milling Co., Fredericksburg.....	Va.
Delmatis and De Late, Ash Creek.....	Minn.
E. Woods, Geneva.....	Ind.
W. D. & T. E. Wilson, Osgood.....	Ind.
Jrs. Bibby & Bro., Charleston.....	W. Va.
Landes Bros., Yerkess.....	Pa.

Since the beginning of 1890 the Case Manufacturing Company have built an even larger number of both flour and corn-meal mills, and among the flour-mills may be mentioned the following:

SOME FLOUR-MILLS IN 1890.

Name and City.	Capacity, bbls.
J. M. Gambill & Co., Roanoke, Virginia.....	125
Semlar & Co., Hameton, Ohio.....	150
J. E. Barrows & Co., Flint, Michigan.....	125
Longmont Milling Co., Longmont, Colorado.....	250
Hawkey Milling Co., Alton, Iowa.....	125

It requires no small amount of impudence and malice, for even a Minneapolis scribbler, to refer to such work as contemptible or insignificant, and the Case Manufacturing Company can certainly afford to have the public know their achievements. The mills in the list for 1888 show an aggregate daily capacity of 2,435 barrels, those in 1889 a capacity of 2,855 barrels, and 5 mills alone in 1890 a capacity of 775 barrels, or a total daily capacity of 6,085 barrels, implying a yearly capacity of 2,210,525 barrels of wheat flour. Taking all the mills built by this company, that are now operating, it is safe to say that their aggregate yearly capacity is over 5,000,000 barrels. The Case corn-meal mills make a proportionate showing. Besides these complete mills, account should be made of the separate Case machines, supplies and partial outfits, the sales of which have amounted to thousands. Almost every modern-process mill in the United States contains one or more pieces of Case machinery. With their mills and machines handling over 20,000,000 bushels of wheat yearly, and winning new laurels all the time under the sharpest competition, the Case Manufacturing Company certainly should not be made the victim of the malicious slurs of any journal that has the slightest connection with milling in the United States. The Minneapolis Holiday Number Fake at \$125 per dupe has lost its grip.

Practical Notes

A NON-LEAKING WALL.—A curious American invention is a new wall for ships. By this invention the walls forming the hull of the ship and its partitions are provided with a lining of compressed sponge, forming a water absorbent material, to prevent water from entering the hull through a defective part or a hole made by a projectile or other means.

GENERAL NOTES.

THE fate of the earth is settled at last. According to Rev. J. S. Vaughan, an Episcopalian clergyman writing in the "Dublin Review," the earth will finally go to heaven. How? In the "resurrection" of bodies buried in it. Mr. Vaughan's scheme is a plain one. The weight of the earth, according to the scales of science, is 6,000,000,000,000,000,000 tons. Mr. Vaughan estimates that by the year 6,000 the population of the earth at the present rate of increase will be about 320,000,000,000,000,000. Unless every one of these people returned his body to the earth, as he truly remarks, "there would be a steady and inconvenient diminution of its bulk." As the ages go on and the dead multiply, the whole of existing matter will be absorbed by their bodies. There will be nothing except the earthly tabernacles of souls. Hence, when the last man dies, and on the final day the archangel sends forth the command to "arise and come to judgment, ye that dwell in the dust," the earth must disappear with the dead. Thanks, Mr. Vaughan!

UNITED STATES PATENT DECISIONS.

Marking of goods with the Design claimed to have been infringed, or else notifying the infringer, is a prerequisite to a claim for damages by the party insisting upon such infringement. Where marking of goods is omitted, and notice relied upon, the burden of proof is on the plaintiff. The court will proceed upon the hypothesis that the burden of averring and proving a failure to mark is on the defendant, the plaintiff not being held to proof of marking in the first instance, such marking being inferred. Where a defendant has shown a failure on the part of plaintiff to mark the articles vended, the burden is upon the plaintiff to show that the defendant was notified before suit was brought that he was infringing. Judge Butler, U. S. Circuit Court, Eastern District of Pennsylvania, May 9, 1890.

Where a foreign statute, under which an extension of a foreign patent was granted, or attempted to be granted, was in force at the time of the application for or issuance of a United States patent, and where, under such statute, the extension, in the absence of unfulfilled conditions, was a matter entirely of right, at the option of the patentee, on his payment of the required fee, the fifteen-year term of such foreign patent being, by the affirmative action of the foreign government in renewing it, continuous and uninterrupted, Held that the United States patent does not expire before the end of the fifteen years' duration of such foreign patent, although before the expiration of the first five years the foreign patent may have lapsed or become forfeited by the non-observance of a condition subsequent, or by the happening of a subsequent condition, imposed by a statute of the country granting such foreign patent. Judge Shipman, U. S. Circuit Court, District of Connecticut, May 20, 1890.

If an inventor construct and sell a new machine or put it into use before applying for a patent thereon, he can not afterward take out a patent and maintain a suit against his purchaser or user for infringement thereof by use of such machine. In such case a demand for compensation made by the inventor after he receives his patent will not affect the rights of the purchaser or user of the machine, because if the inventor had no right to compensation a demand

therefor would not give him any such right. Judge Blodgett, U. S. Circuit Court, Northern District of Illinois, March 31, 1890.

A grant of the exclusive right to make, use and sell a patented article throughout the United States for the full term of the patent is to be treated as an assignment, enabling the assignee to bring suit in his own name against the patentee for an infringement. The circuit courts have jurisdiction of such a suit, as arising under the laws of the United States, even though one issue which may be raised in the case is whether the grant is still in force. Judge Wallace, U. S. Circuit Court, Southern District of New York.

AMERICAN COUNTY INDEBTEDNESS.

According to the returns of the census for 1890, the existing gross indebtedness of the several counties of the various States of the Union is \$145,693,840, toward which the amounts held in sinking funds, cash and other resources are \$30,468,955, leaving \$115,224,885 as the actual debts not provided for. The annual interest charge is \$7,318,374. The following is the county indebtedness by States:

Alabama...	\$1,392,020	Maine.....	\$449,878	So. Dakota..	\$2,690,484
Arkansas...	1,592,582	Maryland...	872,131	Ohio.....	7,856,810
California...	5,607,450	Massachusetts	4,008,660	Oregon.....	782,015
Colorado....	3,190,258	Michigan...	1,615,028	Pennsylvania	8,654,943
Connecticut.	44,713	Minnesota..	3,275,387	Rhode Island	
Delaware....	618,400	Mississippi..	1,238,124	S. Carolina..	1,141,550
Florida.....	390,616	Missouri....	9,974,734	Tennessee...	2,237,659
Georgia....	465,060	Montana....	1,937,150	Texas.....	6,678,563
Idaho.....	1,320,795	Nebraska...	5,302,091	Vermont....	5,151
Illinois.....	11,760,596	Nevada.....	857,278	Virginia....	1,691,434
Indiana.....	6,827,674	N. Hampshire	495,175	Washington	1,170,637
Iowa.....	3,643,814	New Jersey..	5,159,339	W. Virginia.	1,023,887
Kansas.....	14,817,780	New York...10,064,372		Wisconsin...	1,681,256
Kentucky...	5,741,636	No. Carolina	1,521,086	Wyoming...	1,081,482
Louisiana...	156,915	No. Dakota..	1,382,583		

TERRITORIES.

Arizona.....	\$1,549,697	New Mexico	\$1,650,837	Utah.....	\$74,110
Total.....					\$145,693,840

BOOKS AND PAMPHLETS.

Readers of *The Century* will naturally expect that most excellent magazine to keep up its high standard during the coming year, and they will not be disappointed, if judgment may be based upon the prospectus for 1890-91. The 20th anniversary and the beginning of the 41st half-yearly volume are to be aptly celebrated in the November number, which will be a special number of unusual merit. During the coming year there will be published in *The Century* a series of articles including: "The First Emigrant Train to California," by General John Bidwell; "California Before the Gold Discovery," by General Bidwell; "Ranch and Mission Life Before the Gold Discovery," by Miss Guadalupe Vallejo; other California sketches by competent writers; "An American in Tibet," by W. Woodville Rockhill; "Personal Traits of Lincoln," by Messrs. Hay and Nicolay; "Adventures of War Prisoners," by Union and Confederate officers; "Indian Fights and Fighters," by officers who served under those great Indian fighters, Generals Niles, Crook, Custer and Mackenzie; "Minister Dallas at the Court of the Czar Nicholas," from the diaries of George M. Dallas; "American and English Frigates in the War of 1812," by Edgar S. Maclay; "The Faith Doctor," by Edward Eggleston; "Colonel Carter of Cartersville," by Francis Hopkinson Smith; "The Squirrel Inn," by Frank R. Stockton; "Mmes. De Stael, Roland and Recamier," by Mrs. Amelia Gere Mason; "Pictures by American Artists"; "American Newspapers," by Wm. Henry Smith, General H. V. Boynton and others; "Municipal Government in Europe and America," by Dr. Albert Shaw, and numerous other timely and valuable contributions by well-known writers.

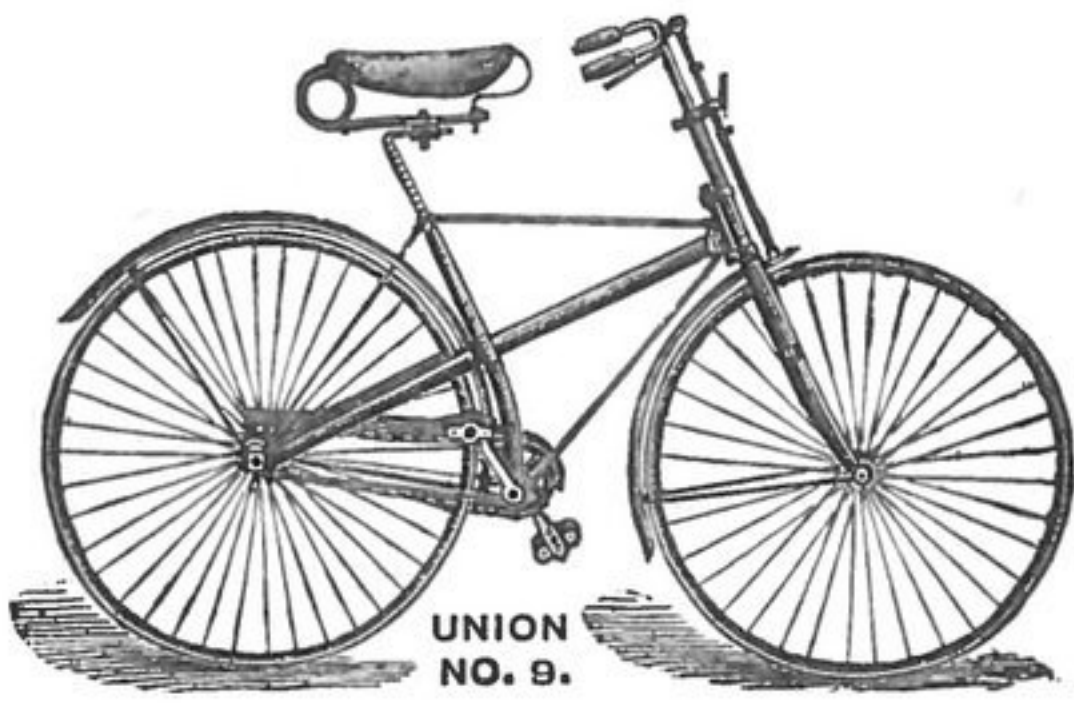
A NEW METHOD OF TREATING DISEASE.

HOSPITAL REMEDIES.

What are they? There is a new departure in the treatment of disease. It consists in the collection of the specifics used by noted specialists of Europe and America, and bringing them within the reach of all. For instance the treatment pursued by special physicians who treat indigestion, stomach and liver troubles only, was obtained and prepared. The treatment of other physicians, celebrated for curing catarrh was procured, and so on till these incomparable cures now include disease of the lungs, kidneys, female weakness, rheumatism and nervous debility.

This new method of "one remedy for one disease" must appeal to the common sense of all sufferers, many of whom have experienced the ill effects, and thoroughly realize the absurdity of the claims of Patent Medicines which are guaranteed to cure every ill out of a single bottle, and the use of which, as statistics prove, has ruined more stomachs than alcohol. A circular describing these new remedies is sent free on receipt of stamp to pay postage by Hospital Remedy Company, Toronto, Canada, sole proprietors.

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Is the peer of High Grade Bicycles in the country. It combines with its beauty, a rare degree of both strength and ease, and the exquisite workmanship on the wheel puts it far ahead of all competitors.

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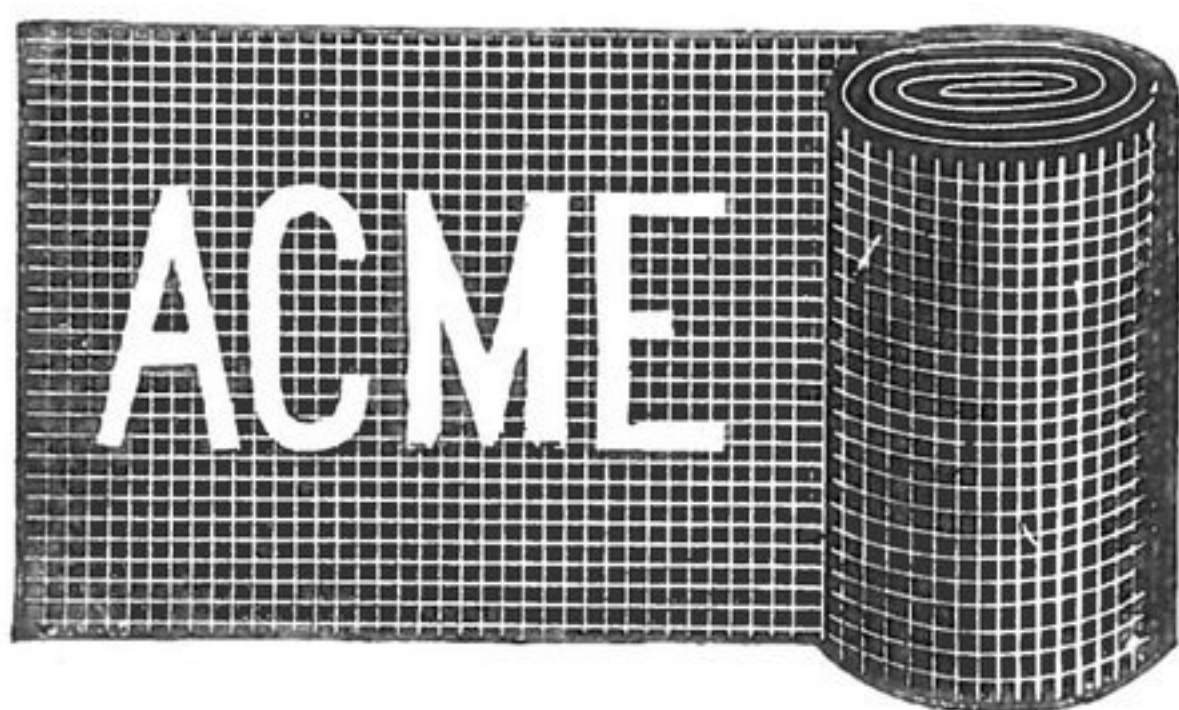
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IN THE WORLD.

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R. C. McCULLEY, LANCASTER, PENN.



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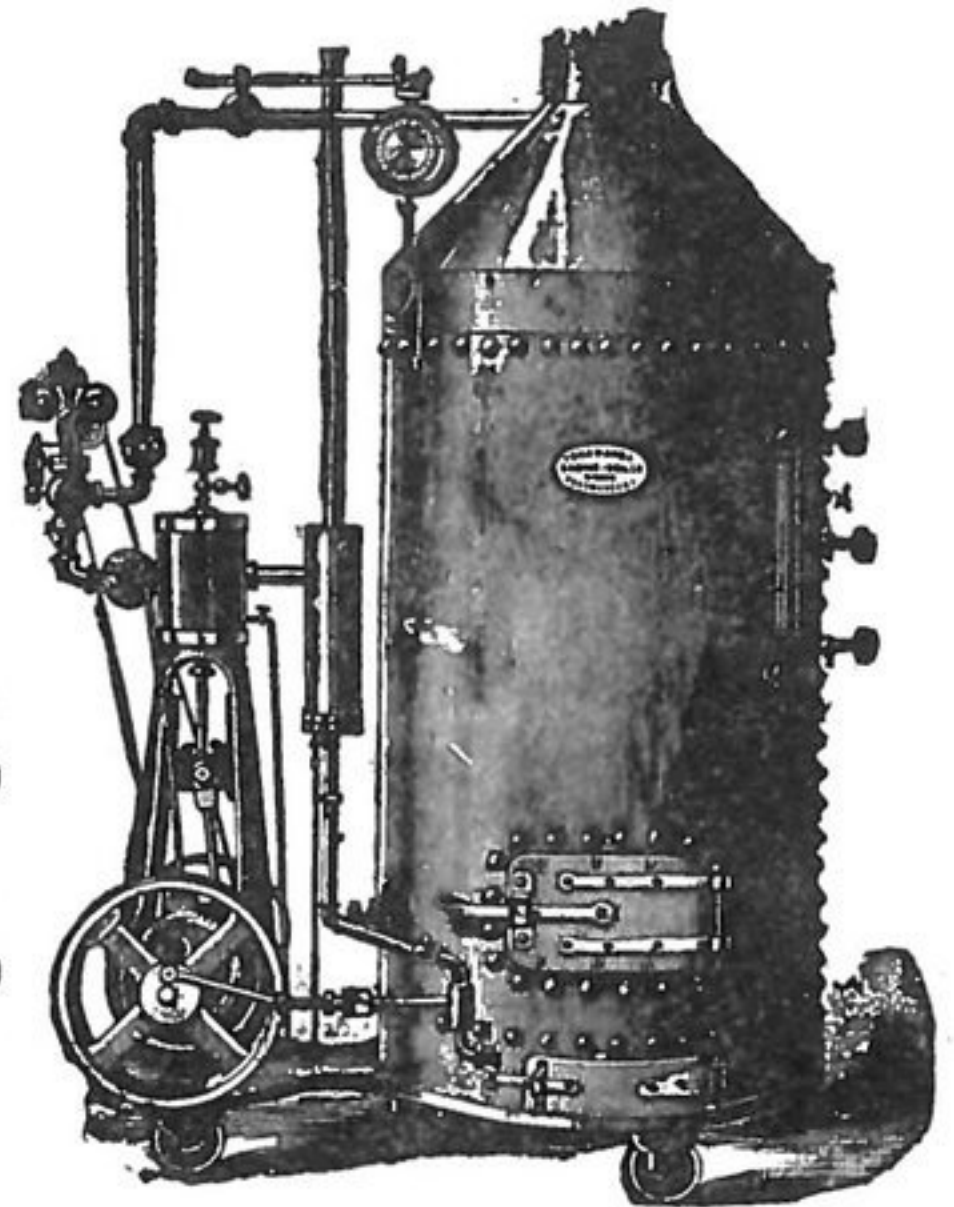
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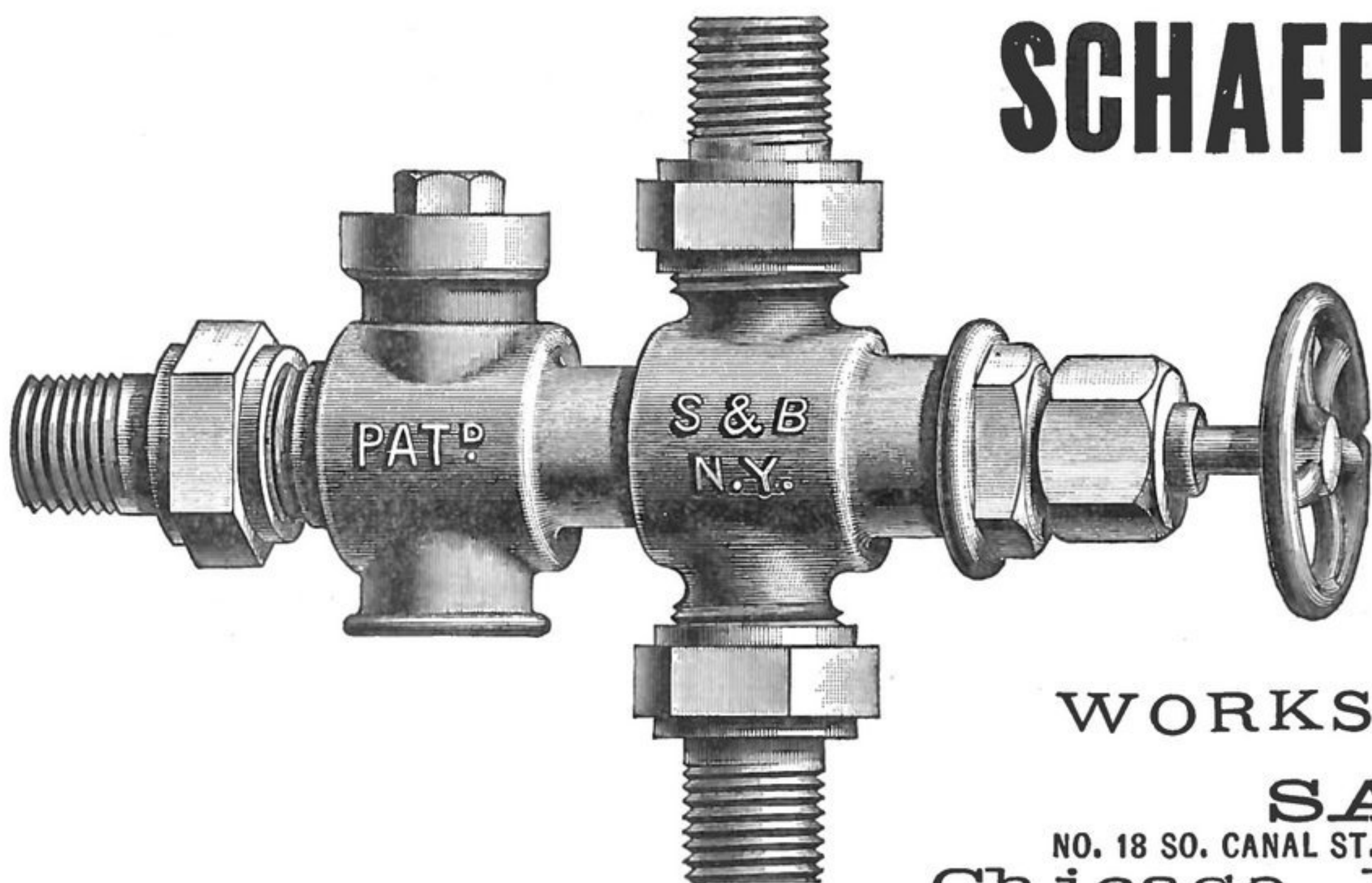
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Tonawanda N. Y.

Sometimes Corrugated Iron is represented to be "just as good as" our Patent Edge Corrugation. While this is complimentary to our material, unfortunately it does not work out well in practice. The only Corrugated Iron that can be recommended for roofing is manufactured by

The Cincinnati Corrugating Co.
PIQUA, OHIO.



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Pressure Gauges for all Purposes

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IMPROVED RESTARTING INJECTORS
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PYROMETER AND THERMOMETER, STEAM TRAPS, REDUCING VALVES, AND ENGINE AND BOILER APPLIANCES IN GENERAL.

WORKS AT BROOKLYN, N. Y.

SALESROOMS:

NO. 18 SO. CANAL ST.,
Chicago, Ill.

NO. 40 JOHN STREET,
New York.



Brady, Tex., men build a grist-mill.
 Snyder, Tex., men project a grist-mill.
 Alex. Box, Quitman, Ga., builds a grist-mill.
 F. Porter's grist-mill, Montgomery, Pa., burned.
 Iseman & Sechler, Evans City, Pa., build a large mill.
 L. E. Donnelly, Donnelly's Mills, Pa., remodels to rolls.
 C. Fegley's Sons, Pine Grove, Pa., build a 30-barrel mill.
 Streining & Shearer, millers, Healdsburg, Cal., attached.
 G. Weidman, Lebanon, Pa., builds a 40-barrel roller mill.
 Geo. Held, Brattonville, Pa., build a 25-barrel roller flouring-mill.
 Stein's uncompleted grist-mill, East St. Louis, Ill., burned; loss \$3,000.
 Swartley Bros., Doylestown, Pa., build a 75-barrel roller flouring-mill.
 Gladeville, Va., men are forming a stock company to build a flour-mill soon.
 H. V. White & Co., Bloomsburg, Pa., build a feed-mill and grain-elevator.
 E. K. Freed & Co., North Wales, Pa., remodel to rolls with 200 barrels capacity.
 F. Waldorf & Co., millers, Monroe, Mich., dissolved, the son Mr. Waldorf retiring.
 N. E. Perkins, Northampton, Pa., has bought the Spring Garden Mill plant for \$10,000.
 The Kittanning Milling Co. is a new \$20,000 stock incorporated concern in Kittanning, Pa.
 L. S. Brown's grist-mill, Willimansett, Mass., burned; loss \$5,000; covered by insurance.
 Ben. D. Lee & Co.'s roller flouring-mill, Belton, Tex., burned; loss \$45,000; insurance \$21,000.
 The Farmers' Alliance, Callahan, Fla., are forming a stock company to build a rice and gristing mill.
 J. A. Davidson and others, Gibsonville, N. C., incorporated the Eureka Mill Co., to build a corn and flour mill.
 R. Thomas, mill and elevator owner, Tuscola, Ill., failed for \$20,000. An oats deal on the Chicago board of trade did him up.
 T. F. & R. M. Stevenson, Pocomoke City, Md., propose to remodel to rolls, and they want prices and descriptions of machinery.
 The grist-mill belonging to the Gideon Wales estate, Pike Pond, N. Y., has been sold to Asa K. Osterhout, of Hortonville, N. Y., who has taken possession.
 Dr. Geo. W. King, of Pandleton, Ore., and others, project a 500-barrel flouring-mill in Port Townsend, Wash., where he will locate. The railroad company donate land for a site.
 A Baltimore, Md., dispatch of September 13th states that 16,000 bushels of wheat, which were brought back in the steamship Alexander Elder from Liverpool, will be returned in that vessel at 12 cents per quarter, or 1½ cents a bushel. When delivered in England, the wheat will have made three trips across the Atlantic. It was said that on its return it was to be sold in the September market, which is an advance on August, and that the difference would pay the freight on its meanderings and leave a margin.
 The thirteenth annual convention of the Pennsylvania Millers' State Association will be held in Reading, Pa., on October 7th and 8th. Among the interesting reports and papers to be read at the convention, the following topics will be treated by the different writers as set forth: "The Milling Industry in Pennsylvania. How can it be made profitable?" W. Latimer Small. "Options. What are They and of What Use to the Millers?" Wilson Welsh. "Freight Discriminations. How do they

Operate against the Eastern Millers?" G. A. Dayton. "Credit. Its Use and Abuse." B. F. Isenberg. "Pennsylvania Millers' Insurance Company. Has it benefited the Millers?" J. M. Maguire. "Millers' Associations. Have they been of a Pecuniary and Social Advantage?" Hon. Cyrus Hoffa.

A Winnipeg, Manitoba, letter of recent date says: "If the crop had turned out as well as it promised just before harvest, Manitoba and the territories combined would have produced probably 18,000,000 to 20,000,000 bushels of wheat, which would have allowed of an export of about 15,000,000 bushels. The present outlook is for a crop 2,000,000 to 5,000,000 bushels less than these figures, and this depends on favorable weather for the grain now in stack. Unless the turn in the weather comes very soon, the marketable part of the crop will be easily expressed in seven figures."

The Winnipeg *Commercial* of September 8 says of the Manitoba outlook on that date: "The outlook is serious. Another week of unfavorable weather has been experienced, and one of the worst storms of the season is prevailing. When we closed our last report the day was clear, and it was hoped that a season of favorable weather would be enjoyed, but a few hours later it was again raining. Saturday evening, August 30, the rain started again. The following day was oppressively close, cloudy and showery; Monday and Tuesday were dark and damp, with drizzling rain on Tuesday afternoon. Wednesday the drizzle kept up for a greater portion of the day. Thursday it cleared up, and Friday was clear and warm until toward evening, when light rain again started, accompanied with thunder. During the early morning and Saturday afternoon the rain fell in torrents. There were reports of sprouting as early as the first day or two of the week, and later conditions did not improve the situation. Harvest has dragged along slowly. A great deal of cutting was done during the week. Although the weather was dark and cloudy, nearly all the week the amount of rain that fell was not very great up to Saturday morning. With the exception of Wednesday and Saturday, there were only very light sprinkles, and cutting went on between the showers. Stacking, however, could not be carried on to any extent, and the bulk of the grain is still in the stook. It is feared there may be considerable damage from stacking grain on the damp side, and threshing damp grain from the stook. Unless there is an immediate change in the weather the outlook will be serious."

SPECIAL NOTICES.

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Do not order your cloth until you have conferred with us. It will pay you, both in point of quality and price. We are prepared with special facilities for this work. Write us before you order.

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TOLEDO MILL PICKS AND STONE TOOL MFG. CO.

Manufacturer  and Dresser of

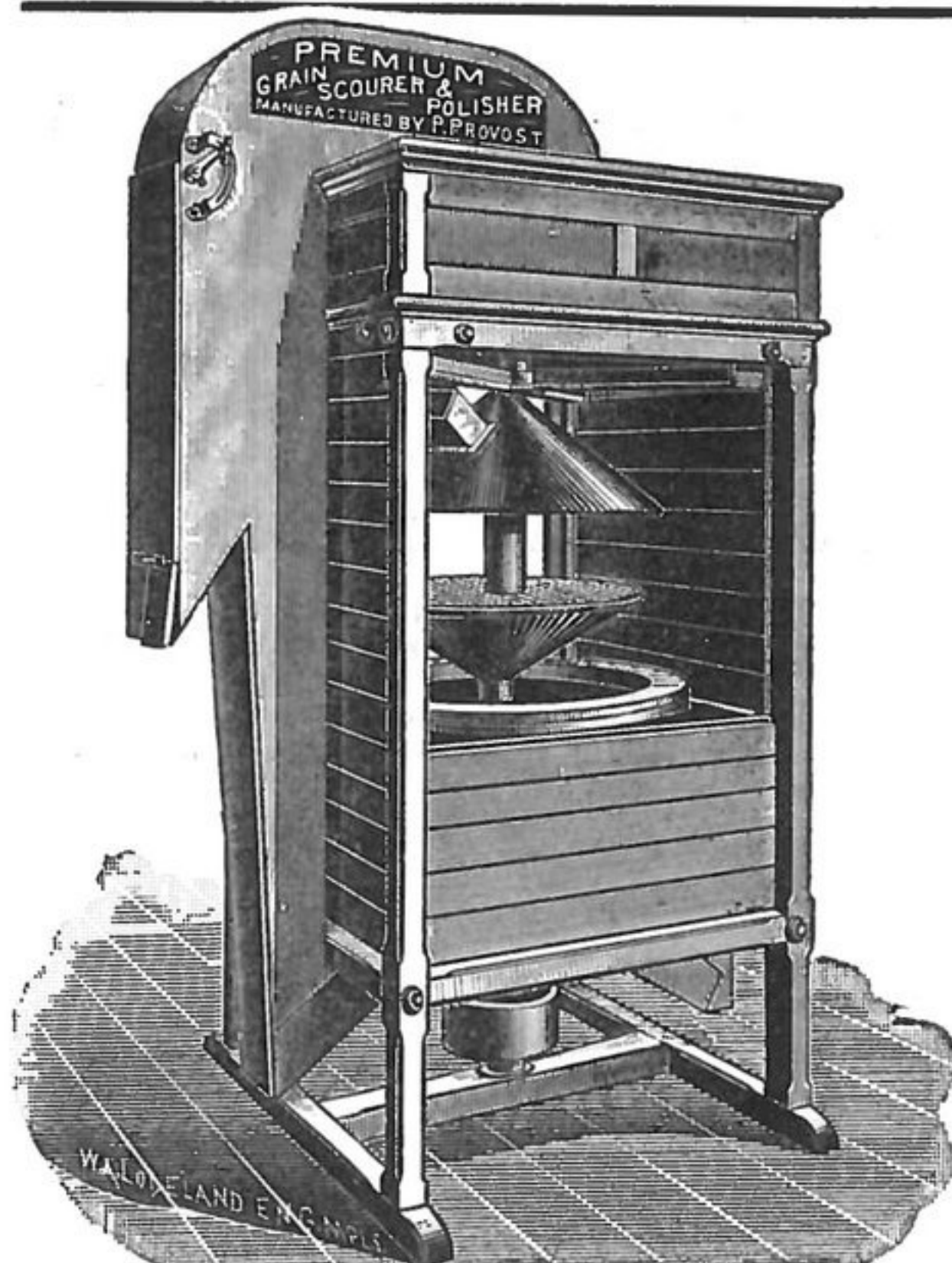
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THE PREMIUM GRAIN SCOURER AND POLISHER.

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Samples of Work Sent on Application

Address for full particulars,

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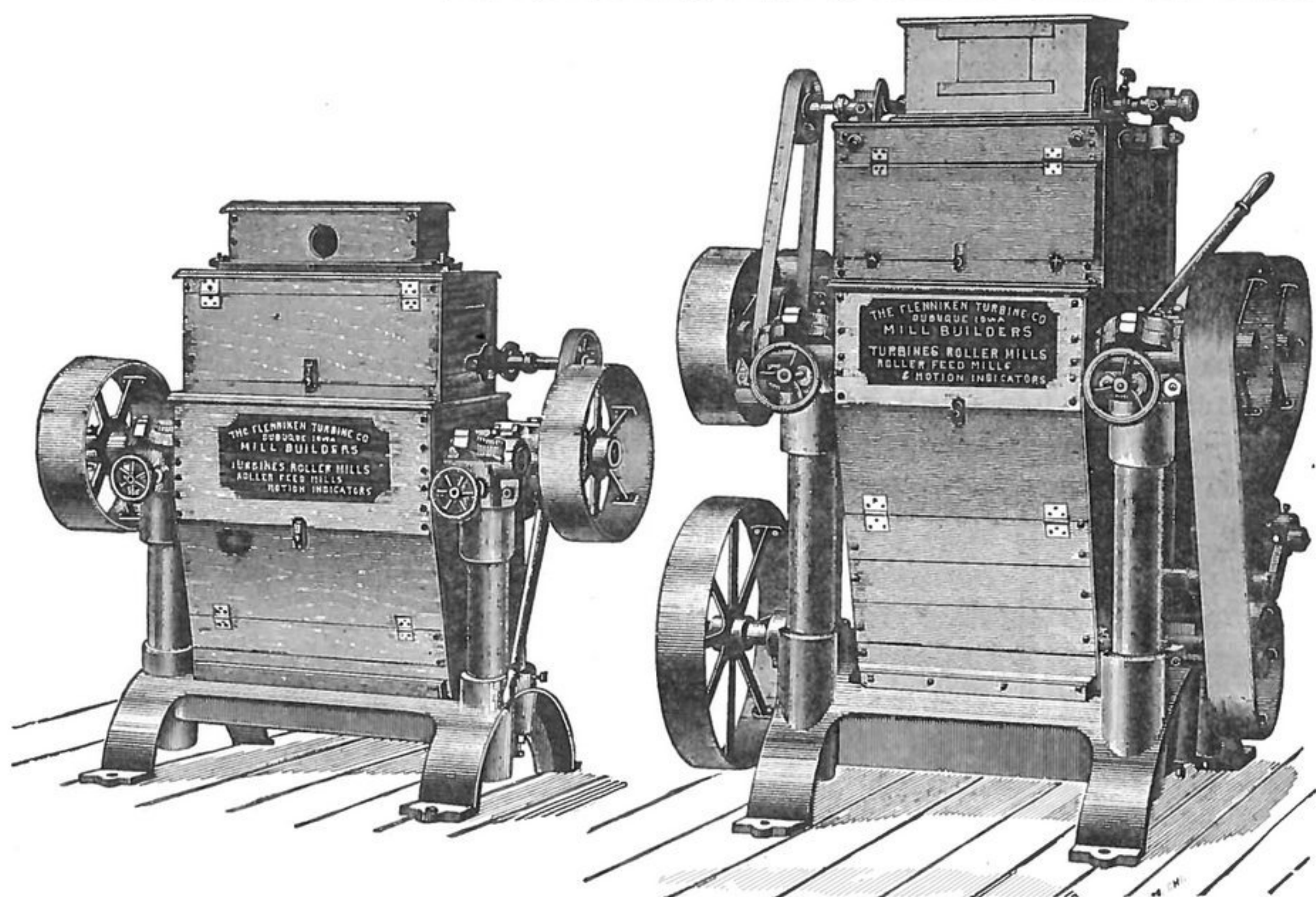
MINNEAPOLIS, MINN.

ONE REDUCTION TO THE FRONT!

*Ye jolly millers, one and all,
Who granulate with burrs,*

A Moses has Come to Deliver You from Egypt. Cease Trying to Make Bricks without Straw. The Red Sea of Expense Has Been Divided.

The Wilderness of Reductions has Been Shortened. There is Manna in Abundance for Those Who Believe. Listen to the Glad Tidings of Great Joy!



ONE REDUCTION ON ROLLS IS A SUCCESS! Two years of experience in a dozen States, with all kinds of Wheat and diversified climates, has justified us in recommending its adoption in place of burrs in each and every case, whether for grinding Wheat, Rye or Buckwheat. We have perfected Roller Mills, Bolts and Scalpers peculiarly adapted to the wants of Small Mills, and all our machines *infringe no patents*, and no claims are made that they do.

Having consummated a bargain with **MR. O. C. RITTER**, the author and patentee of **One Reduction**, which gives us the *exclusive right* to construct mills under his patents, our patrons in the future will receive a license from Mr. Ritter.

SPECIALTIES!

Graham Roller Mills, Round Reels and Scalpers, Sectional Round Reels, Grain Separators, Motion Indicators. Before buying any of these machines send for our prices and descriptive circulars.

SPECIALTIES!

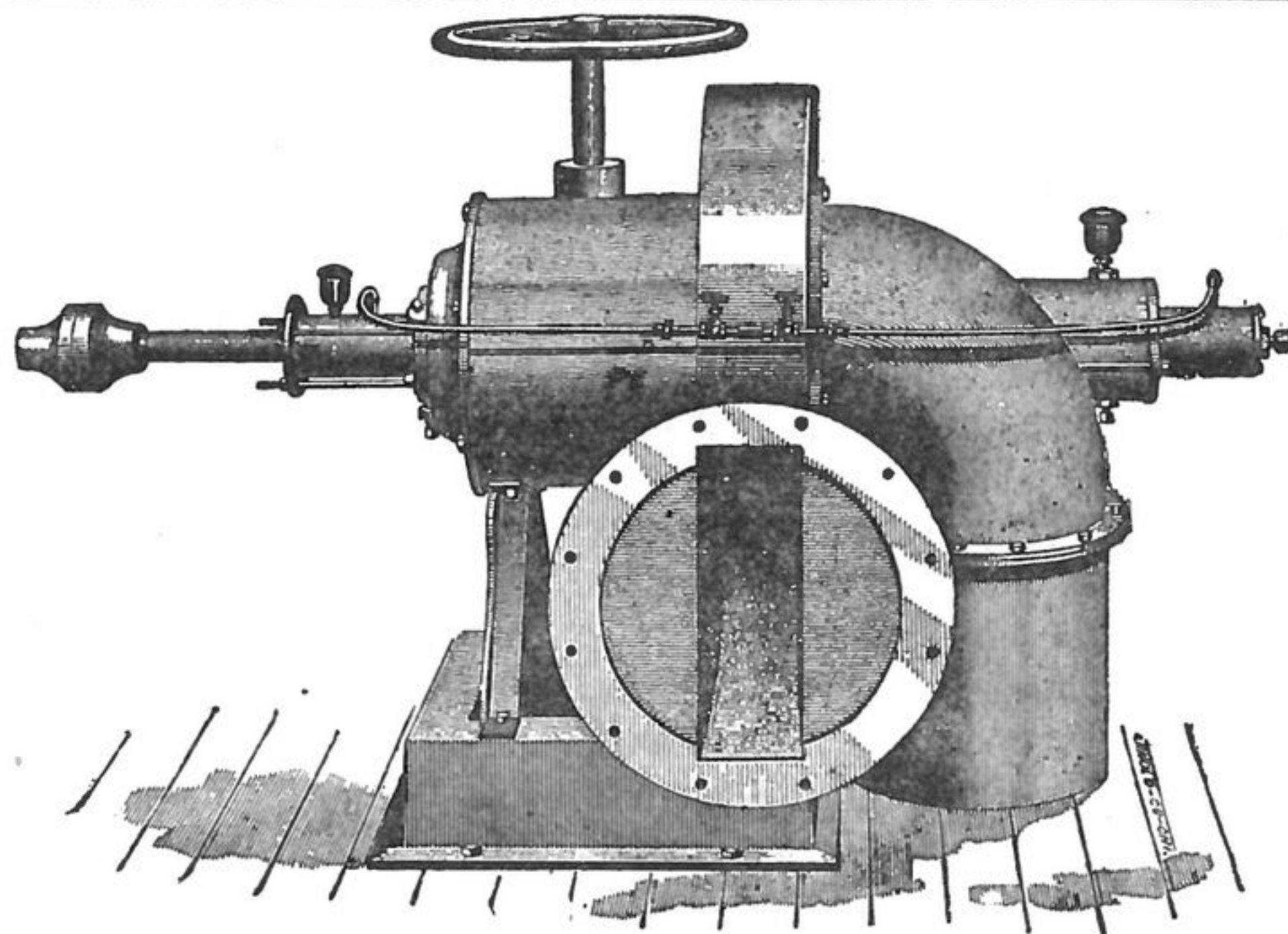
Second-Hand Machinery, and Bargains in Every Line.

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The Best Turbines!

VERTICAL OR HORIZONTAL,
With or Without Iron Flumes,

—BUILT BY THE—



Flenniken Turbine Co.

DUBUQUE, - IOWA.

EUROPEAN ECHOES.

PARIS complains of the quality of the French barley crop, which, like wheat, has been injured by too much rain.

A CONGRESS of Russian millers has been held at Odessa for the purpose of devising means for increasing the exports of Russian flour.

FROM Hungary it is reported that the export trade in wheat and flour is seriously handicapped by the rise of 15 per cent. in the exchange, compared with two years ago.

A PARIS despatch, dated September 13, states that late returns from the wheat-growing sections of France indicate a crop of 307,183,000 bushels, against 312,512,000 bushels in 1889.

THE Paris "Bulletin des Halles" gives the yield of the present French wheat crop at 278,000,000 bushels net. The requirements it estimates at 336,000,000 bushels and the per capita consumption at 7.44 bushels.

RUSSIA complains of the quality of its wheat, and contrary to the common belief that poor quality makes high prices for the good, that country is expected to push forward the crop, relieving itself as soon as possible of grain that is unsafe to keep.

A LETTER from Paris, under date of September 1, has the following as to the harvest situation there: "We have had rain nearly all the past week, and the temperature has fallen. Harvest operations in the north are interrupted, and agriculturists express much disappointment. Scarcely the half of the crop has been harvested in this district, and in very bad condition; the remainder runs great risk of being entirely spoiled. Farmers' offers are more liberal on our market, but prices keep up, and millers are obliged to pay what is asked. They only buy enough for daily wants, as they count on getting better terms as soon as threshing is more general."

THE London, England, "Daily Graphic" says: Last year the imports of Russian wheat decreased greatly, compared with that of the preceding year, because of the deficient crop; this year, with every prospect of an excellent crop, there is likely to be still a small export of wheat from Russia, because the rouble has increased so much in value, or rather the pound sterling has depreciated so much. Eighteen months ago, says a writer in the "Levant Herald," the pound sterling was worth at Odessa 12 roubles and 50 copecks; now it is only worth 8 roubles and 50 copecks. The Russian grain-houses must therefore either cease to export wheat or face bankruptcy; and of the two evils they have chosen the first. A small import from Russia, in a season when the yield of the American wheat crop is below the average, means for us that we shall be more than we would care at the mercy of the wheat speculators in America next winter.

BEERBOHM'S "Corn Trade List" of September 3 says: The official estimate of the Hungarian wheat crop just published shows the yield to be 158,000,000 bushels. This is therefore a larger crop than has ever before been grown in Hungary, and with a crop of about 48,000,000 bushels in Austria, makes a total of 206,000,000 bushels, from which the export surplus during the coming season in wheat and flour may be put at 32,000,000 bushels. From Russia the latest reports state that the wheat crop is even more disappointing than was thought, both in quantity and quality, while the stocks of old wheat are much reduced. Roumania has an excellent wheat crop, but it is confidently stated that, owing to the failure of the maize crop, 20 to 30 per cent. more wheat will be consumed at home than in ordinary years. Bulgaria, Roumelia, Turkey and Servia are semi-officially estimated to have an export surplus of 12,000,000 bushels this season. The Spanish wheat crop is now said to be 25 per cent. worse than last year, and to necessitate an import of over 16,000,000 bushels, Portugal requiring 4,000,000 bushels.

POINTS IN MILLING.

CREASE-DIRT, or seam-dirt, or whatever else it may be properly or improperly called, seems to hold the floor yet in milling circles, despite the fact that certain writers have abolished it. It is a painful fact that the abolition on paper has had no effect on the actual seam and its actual black contents in the actual wheat-berry. I notice that the British, French, German and Austro-Hungarian millers still talk familiarly of crease-dirt, and it would be wise for certain American technical writers to join the procession and call the dirt in the crease by its good old-fashioned name. Wheat continues to grow with that very undesirable crease in its coat, and dirt, obeying natural laws, continues to get into that crease, much to the disgust of the flour-maker.

HAS there ever been an attempt made to produce a wheat-berry without this crease? What have the scientific growers done in the matter? There are millions of dollars in a variety of wheat whose every berry shall be free from the crease. Is there any possibility of finding such a berry?

I NOTE that the German and some other European millers still swear by the Haggenmacher "Plansichter." Notwithstanding that fact, this vaunted machine appears to make haste slowly. The situation seems to imply that, while it may be superior to corresponding German and Hungarian machines, the "Plansichter" is not equal to the American machines in function and capacity. The keenness of competition in the United States is so great that any machine capable of answering to the claims made for the Haggenmacher machine would at once find wide sales here.

SO! One of your cotemporaries thinks J. Murray Case never knew anything about the "commercial side of milling," eh? Well, does the egotistic popinjay up in Minneapolis, who penned that slur, fail to understand that Mr. Case's house has always kept remarkably close to the "commercial side" of flour-making, as every engineering firm or individual must do who tries to make and sell flouring-machines? The maker of machines has the first and most important "say" so far as flour and markets are concerned. He sets the pace with his machine. He must judge his machine by the "commercial side" of milling. His machine must give "commercial" rating to the product. If there ever was a man in the United States who did understand the real "commercial side of milling," that man is J. Murray Case, notwithstanding the whiffetish yelp from the malicious Minneapolis slanderer. The Case machines have always been able to make "commerce" possible by making flour that answered the demands of the markets. The Minneapolis definition of "the commercial side" may be gambling, and there, of course, the honest J. M. C. would know nothing about the subject, nor would any other man of equal honesty.

MILLING PATENTS.

Among the patents granted September 16, 1890, are the following:

Wm. W. Huntley, Silver Creek, N. Y., No. 436,581, a device for operating the shaking-shoes of grain-scourers.

Alonzo J. Miller, Oneida, Ill., No. 436,585, a grain registering and loading attachment.

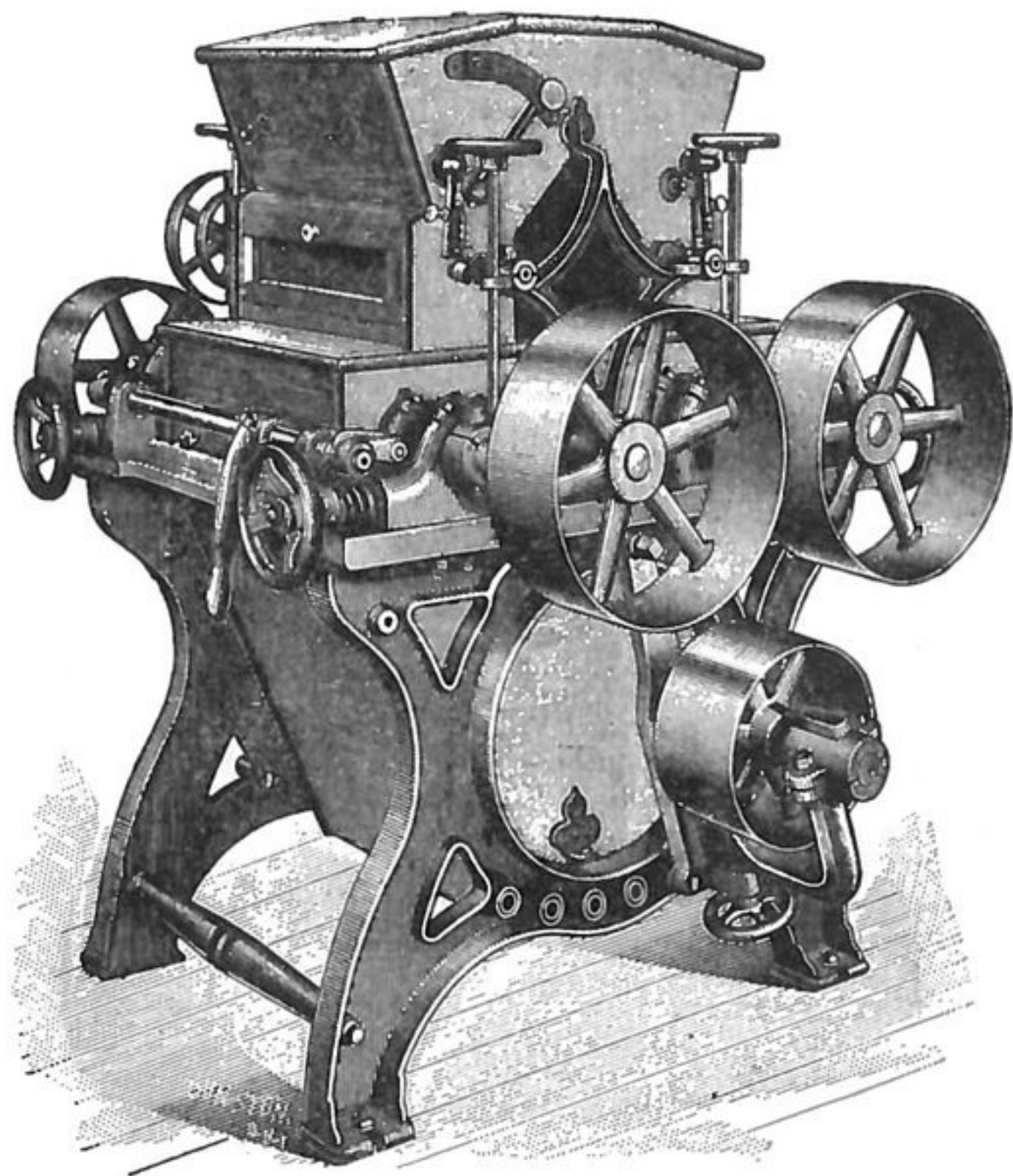
CATARRH.

CATARRHAL DEAFNESS—HAY FEVER.
A NEW HOME TREATMENT.

Sufferers are not generally aware that these diseases are contagious, or that they are due to the presence of living parasites in the lining membrane of the nose and eustachian tubes. Microscopic research, however, has proved this to be a fact, and the result of this discovery is that a simple remedy has been formulated whereby catarrh, catarrhal deafness and hay fever are permanently cured in from one to three simple applications made at home by the patient once in two weeks.

N. B.—This treatment is not a snuff or an ointment; both have been discarded by reputable physicians as injurious. A pamphlet explaining this new treatment is sent free on receipt of stamp to pay postage, by A. H. Dixon & Son, 337 and 339 West King street, Toronto, Canada.—*Christian Advocate.*

Sufferers from Catarrhal troubles should carefully read the above.



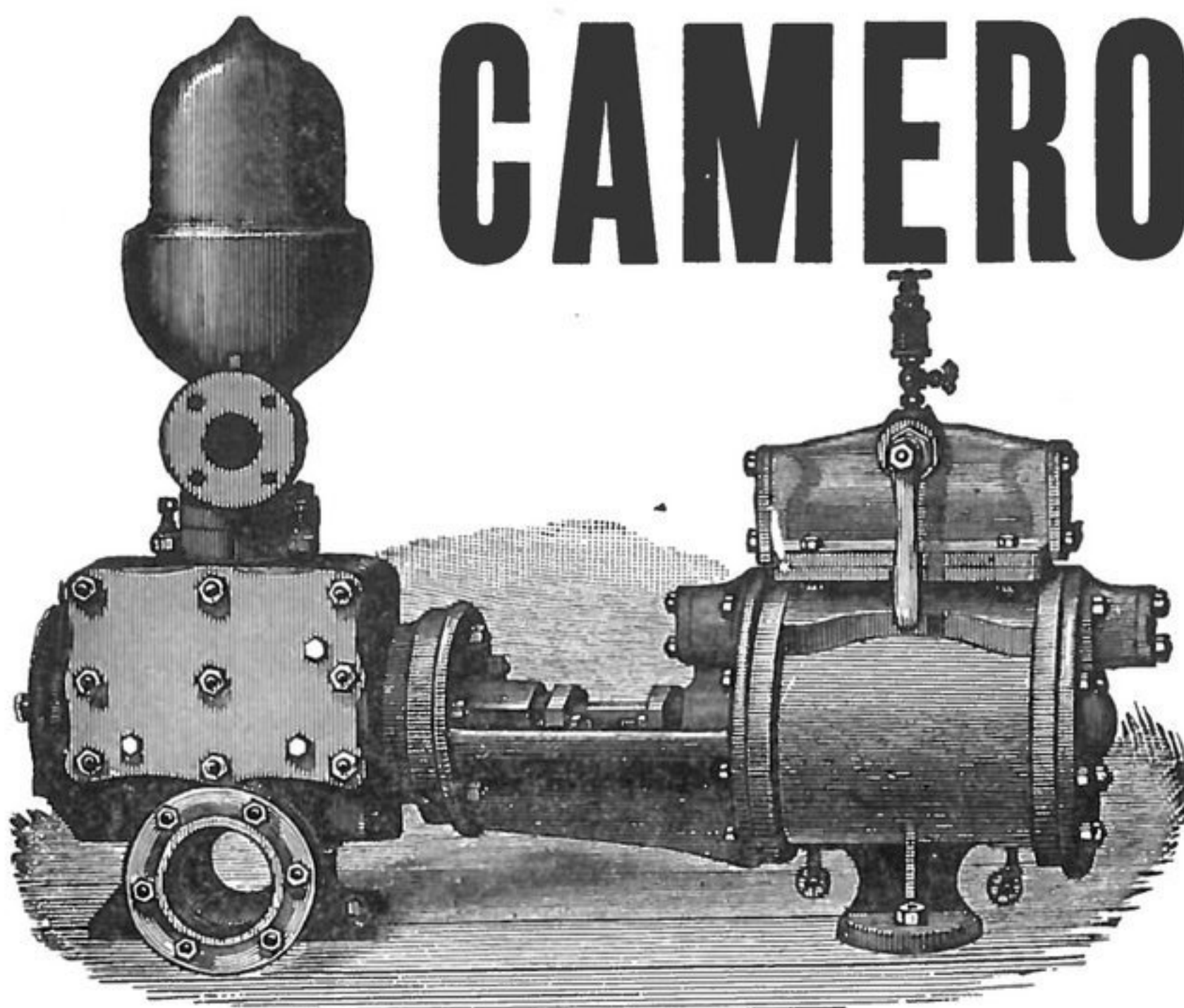
Munson Bros., Utica, N. Y.

MANUFACTURERS OF

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Plans and Specifications Furnished
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CAMERON STEAM PUMP

THE STANDARD OF EXCELLENCE.

SIMPLE! COMPACT! DURABLE!

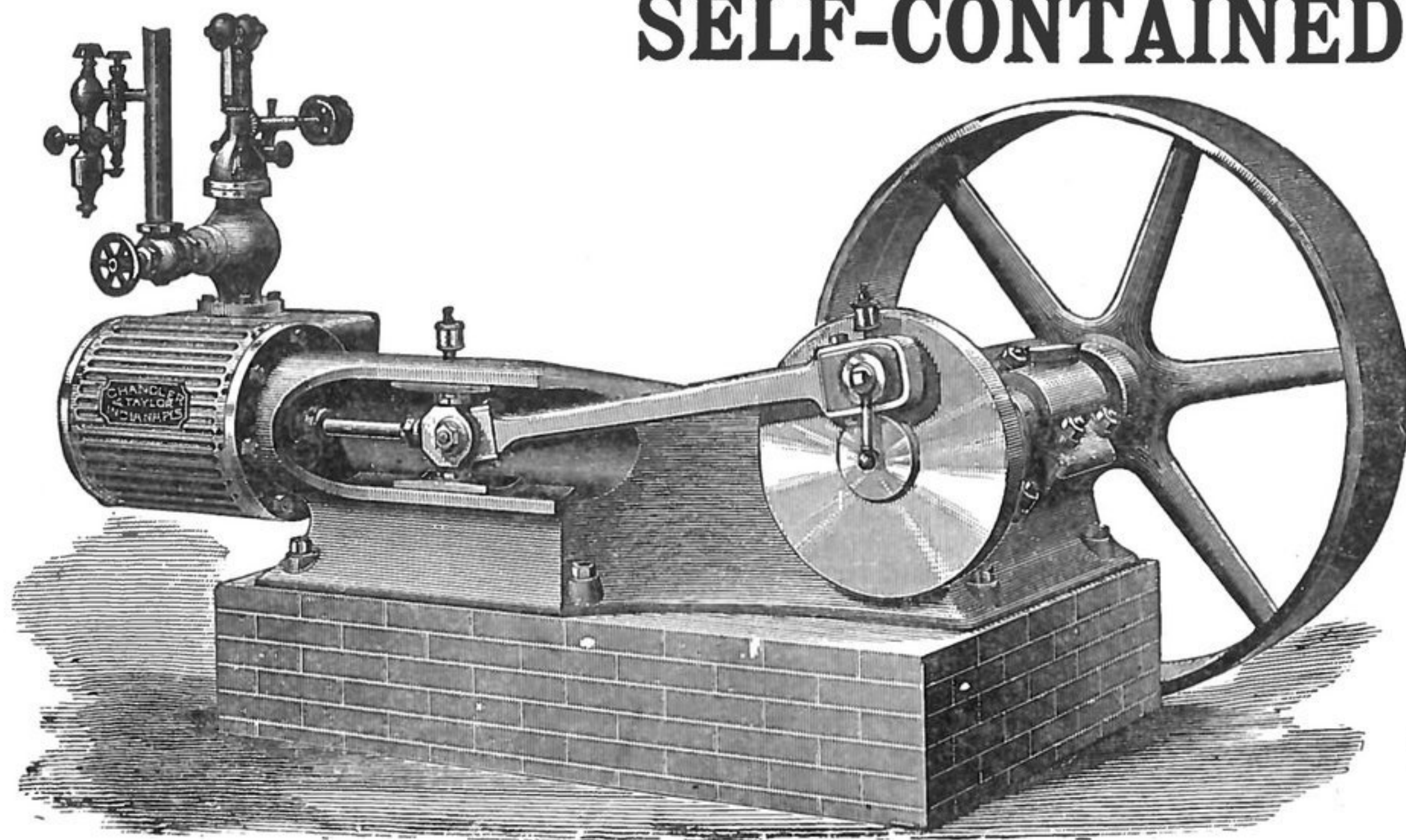
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Steam, Air & Vacuum Pumps in Every Variety

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THE A. S. CAMERON STEAM PUMP WORKS

Foot of East 23d Street, New York.



SELF-CONTAINED STEAM ENGINES

Stationary or
Semi-Portable.

High Standard Maintained.
Prices Greatly Reduced.

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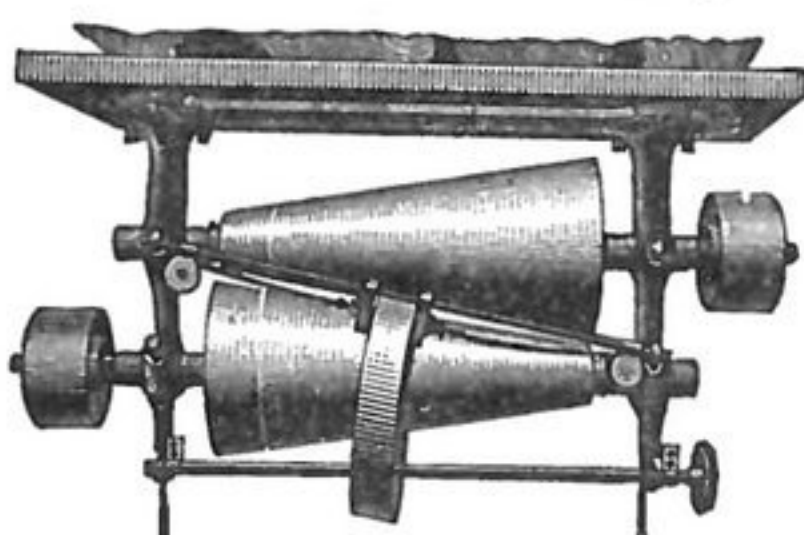
Chandler & Taylor Co.

Indianapolis, Ind.

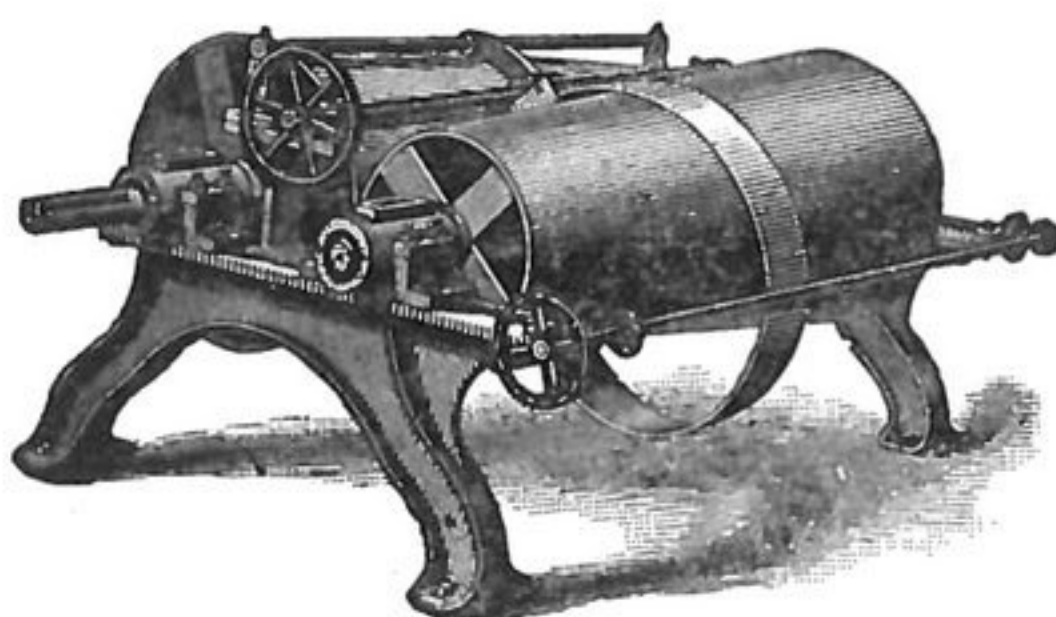
Engines, Saw-Mills and Drain Tile
Machinery a Specialty.

THE EVANS FRICTION CONE & FRICTIONAL GEARING

"PATENTED."



This cut represents a set of hanging cone pulleys. This pattern is intended for that class of machinery that stops and starts at the same speed, and at the same time be able to change the speed more or less while running. These cones are also fitted with a governor where a steady motion is required and the initial power is



fluctuating. All sizes made from 1/2 Horse Power to 50 Horse Power. SEND FOR ILLUSTRATED CATALOGUE.

EVANS FRICTION CONE CO., 85 Water St., BOSTON.

SHIPPERS
CAN SAVE TIME
AND TROUBLE
AND CASH

BY USING
BARLOW'S
PATENT
MANIFOLD
SHIPPING
BLANKS. SEND FOR
SAMPLE SHEET AND PRICES
BARLOW BROS. GRAND RAPIDS, MICH.



OFFICE OF THE MILLING WORLD,
BUFFALO, N. Y., Sept. 20, 1890.

Friday of last week was a day of less bullish feeling in the cereal markets, with a lower closing on heavy realizing and liquidation of the short interest. In New York September wheat closed at \$1.05½, with Atlantic port receipts 85,921, exports 34,645, and options 10,500,000 bushels. September corn closed at 57½c., with receipts 82,275, exports 155,527, and options 3,528,000 bushels. September oats closed at 44c., with receipts 144,550, exports 17,402, and options 355,000 bushels. Wheat flour was only slightly affected by the decline in wheat. Receipts were 3,432 sacks and 28,279 barrels, and exports 30,480 sacks and 6,646 barrels. The minor lines were featureless.

Saturday brought unsettled markets, opening higher on cold weather in the West and closing lower and heavy on weaker cables and general realizing. Heavy rains and snow were reported in the Northwest, with the mercury at 26 degrees in the higher parts of North Dakota. September wheat closed at \$1.04½, with receipts 17,321, exports 26,215, and options 950,000 bushels. September corn closed at 57½c., with receipts 103,495, exports 178,357, and options 1,200,000 bushels. September oats closed at 44½c., with receipts 158,334, exports 25,574, and options 145,000 bushels. Wheat flour was firm and fairly active. Receipts were 1,645 sacks and 25,501 barrels, and exports 8,943 sacks and 5,915 barrels. The minor lines were firm.

Monday opened with weaker and lower markets, on lower cables, better weather reports, escape from predicted frosts in the West, larger receipts and free realizing. September wheat closed at \$1.00½, with receipts 73,677, exports 45,060, and options 7,032,000 bushels. September corn closed at 55c., with receipts 241,285, exports 48,636, and options 3,624,000 bushels. September oats closed at 43c., with receipts 209,631, exports 10,264, and options 120,000 bushels. Wheat flour was down with wheat. Receipts included 5,037 sacks and 31,144 barrels, and exports 50 sacks and 6,042 barrels. The minor lines were featureless. The visible supply in the United States and Canada was:

	1890.	1889.	1888.
Wheat.....	Sept. 13. 17,589,729	Sept. 14. 15,697,456	Sept. 15. 31,378,221
Corn.....	8,130,539	12,891,980	8,602,854
Oats.....	3,999,186	5,915,944	5,211,494
Rye.....	598,392	1,074,858	508,398
Barley.....	823,420	423,338	136,696

Tuesday brought dull, stronger and higher markets, on cessation of selling by shorts and realizing. The shorts were the only buyers. September wheat closed at \$1.01½, with receipts 25,457, exports 35,148, and options 1,536,000 bushels. Private cables from France estimated the French wheat crop at 338,000,000 bushels, against 308,000,000 bushels in 1889, while a Liverpool estimate made it 22,500,000 bushels less than the 1889 crop and decidedly inferior in quality. September corn closed at 55½c., with receipts 209,046, exports 50,865, and options 928,000 bushels. September oats closed at 43½c., with receipts 257,567, exports 21,592, and options 150,000 bushels. Wheat flour was dull and in sellers' favor on grades below \$4, and in buyers' favor on grades above \$5. Receipts were 5,671 sacks and 43,014 barrels, and exports 11,390 sacks and 17,061 barrels. The minor lines were featureless.

The following shows the amount of wheat and flour, together with the amount of corn on passage to United Kingdom, for ports of call or direct ports for the weeks mentioned:

	1890.	1890.	1889.
	Sept. 16.	Sept. 9.	Sept. 17.
Wh. & flour, qrs.	2,450,000	2,457,000	1,663,000
Corn, qrs.....	646,000	663,000	372,000

The following shows the amount of wheat and corn on passage to the Continent for the past week, the previous week, and for the same week last year:

	1890.	1890.	1890.
	Sept. 16.	Sept. 9.	Sept. 17.
Wheat, qrs....	629,000	545,000	326,000
Corn, qrs.....	154,000	135,000	111,000

Shipments India wheat to United Kingdom..... 50,000
do do Continent..... ..

The imports into the United Kingdom for the past week and the previous week and for same week last year:

	1890.	1890.	1890.
	Sept. 16.	Sept. 9.	Sept. 17.
Wheat, qrs.....	307,000	346,000	301,000
Corn, qrs.....	181,000	185,000	153,000
Flour bbls.....	155,000	161,000	155,000

Wednesday brought higher and stronger markets generally, on buying by bulls and on a reported deficit in the Russian wheat crop. September wheat closed at \$1.02½, with receipts 54,541, exports 27,614, and options 4,940,000 bushels. September corn closed at 56½c., with receipts 160,013, exports 77,559, and options 520,000 bushels. September oats closed at 44c., with receipts 163,637, exports 14,813, and options 250,000 bushels. Rye grain was firm at 68@71c. for full loads of Western delivered, 70@73c. for do State, and 65@67c. for car-lots on track. Barley was active and advancing, with sales of fancy Western to arrive at an outside point at 87c., and sales of Western made to date, to arrive at 75c. up to over 80c. for prime Western on this crop. State and Canada were neither offered nor bid for. Malt was advanced 2½@5c. with barley, and wanted at the advance for good old stock, which is scarce. Two-rowed State 75@80c; six-rowed do 80@85c; country made Canada 85@90c.; city do 90@95c. Mill-feed was active and easier with 80 lbs. chiefly at 90c. in lines, and 40 and 60 lbs. in lots at 90c., and 100 lbs at \$1.10; 40 lbs. at \$1.10; 40 lbs. was getting at a discount, and 85c. was the best bid in lines reported.

Wheat flour was dull and featureless, with all buyers holding off. Some grades were quoted and moved as follows: \$5.90@6.00 for standard old spring patents in lots was about all doing in them, though \$6.15 was quoted for some, and as low as \$5.50 for soft. Winter patents were held at \$5.75@5.85 for the best and bid \$5.65, and from that down to \$5.35, which was the top on straights, and \$5.25 the general price on choice. Clear winters at \$4.90@5.00, and city mills at \$5.00, were steady and in fair West India demand, as well as rye mixtures and bakers' spring to the trade at \$4.65@4.90. Low grades scarce and firm; sacks extra No. 2 winter \$3.75; 1 car spring patents at \$6.00; 3 cars choice do \$5.90; choice No. 2 winters were held higher, at \$4.00 in sacks and \$4.25 in bbls. and bids were 10c. less on both; \$5.25@5.50 was all that spring straights brought, though some fancy were held at \$5.65. The fancy brands spring patents were held at \$6.15@6.25, and \$6.00 was the best bid in car lots; old and new spring patents at \$5.85. City mills were held higher, at \$5.10@5.15, with good demand at \$5.00, and sales were made at \$5.00@5.15; city mill fines sold at \$3.40 in bbls., and small lots patents at \$5.75@6.00, closing \$5.10@5.15 in lines and lots asked; superfine winters \$3.85 in bbls.; spring wheat fine, p. t., but quoted \$3.00 in sacks. Receipts 3,058 sacks and 32,436 barrels, and exports 6,779 sacks and 7,641 bbls. Rye flour was steady at \$3.50@4.00. Buckwheat flour was held at \$3.00@3.25 and bid \$2.75@3.00 for choice to fancy new crop. Corn products were firm at the following quotations: Brandywine at \$3.25; Southern and Western \$3.00@3.25; granulated yellow \$4.50; granulated white \$4.75; fine white and yellow in sacks \$1.13@1.18; coarse do \$1.06@1.10; Southern in bags 98c.@\$1.48 for the range; brewers' \$1.38.

Thursday brought active and steady markets. September wheat closed at \$1.02½, with receipts 59,000, exports 26,000, spot sales 34,000, and options 4,264,000 bushels. Prices weakened once on big reports of the Hungarian crop, but reacted on snow and rains reported in the West and Northwest. September corn closed at 56c., with receipts 112,000, exports 51,000, spot sales 129,000, and options 1,730,000 bushels. September oats closed at 44c., with receipts 106,000, spot sales 116,000, and options 150,000 bushels. Wheat flour was steady and quite active, with receipts 23,000 and sales 19,000 packages. Quotations included: Low extras \$3.34@3.90; city mills \$5.00@5.20; city mill patents \$5.40@6.25; winter wheat low grades \$3.35@3.90; fair to fancy \$4.00@5.35; patents \$4.65@5.75; Minnesota clear \$4.45@5.25; straight \$4.75@5.75; Minnesota straight patents \$5.25@6.25; rye mixtures \$4.50@5.10; superfine \$2.85@3.90. The Minneapolis output of flour last week was 172,060 barrels. The minor lines were firm and quiet.

BUFFALO MARKETS.

Buffalo, N. Y., September 18, 1890.
The markets fluctuated considerably, particularly on wheat and corn. WHEAT—Millers took hold a little to-day, and sales were reported of 5,000 bu. new No. 1 hard at \$1.07½; 1,200 bu. old do at \$1.14½; 550 bu. do \$1.15½; 8,000 bu. old No. 1 Northern at \$1.11½; 16,000 bu. new do at \$1.02½; 1 car No. 1 red at \$1.05; 5 cars No. 2 red at \$1.03½; 2 cars do at \$1.03, and 1 car No. 1 white at \$1.02½. At the close old No. 1 hard was held at \$1.15½; new do at \$1.09; new No. 1 Northern at \$1.03; No. 2 red at \$1.04, and No. 1 white at \$1.03 on track. CORN—The market closed firm at 53½@53¾c. for No. 2 yellow; 52¾c. for No. 3 yellow; 52½@52¾c. for No. 2 corn, and 51½c. for No. 3 do. OATS—Sales of No. 2 white were made at 42½c., and they closed at 43c. in store. No. 3 white sold at 41½c.; No. 2 mixed at 40½c., closing at 41@41½c. BARLEY—Choice Canada is held at 87c., and Western at 85@82c., according to quality. RYE—The market is entirely nominal at 70@72c. for No. 2. OAT-MEAL—Akron, \$6.45; Western, \$6.20 per bbl; rolled oats, in cases, 72 lbs. \$3.10; CORNMEAL—Coarse, \$1.00@1.05; fine, \$1.05@1.10; granulated \$1.60 per cwt. MILL-FEED—City-ground coarse winter, \$17.00@17.50 per ton; fine do. \$17.50@18.00; finished winter middlings, \$.....@20.00; coarse spring do, \$19.00.

FLOUR MARKET.

Spring Wheat.	Winter Wheat.
Patents..... \$6.25@6.50	Patents \$6.25@6.50
S't Bakers' @5.75	S't roller. . . . 5.25@5.50
Bakers' cl'r. . . . @5.25	Amber 5.00@5.25
B Rye mixt. . . . @4.75	Crck'r flour... 5.00@5.25
Low Grades @3.50	Low grades... 3.25@3.50
Rye flour 3.50@3.75	Graham..... 4.75@5.00

Retail prices 50c. above these quotations.

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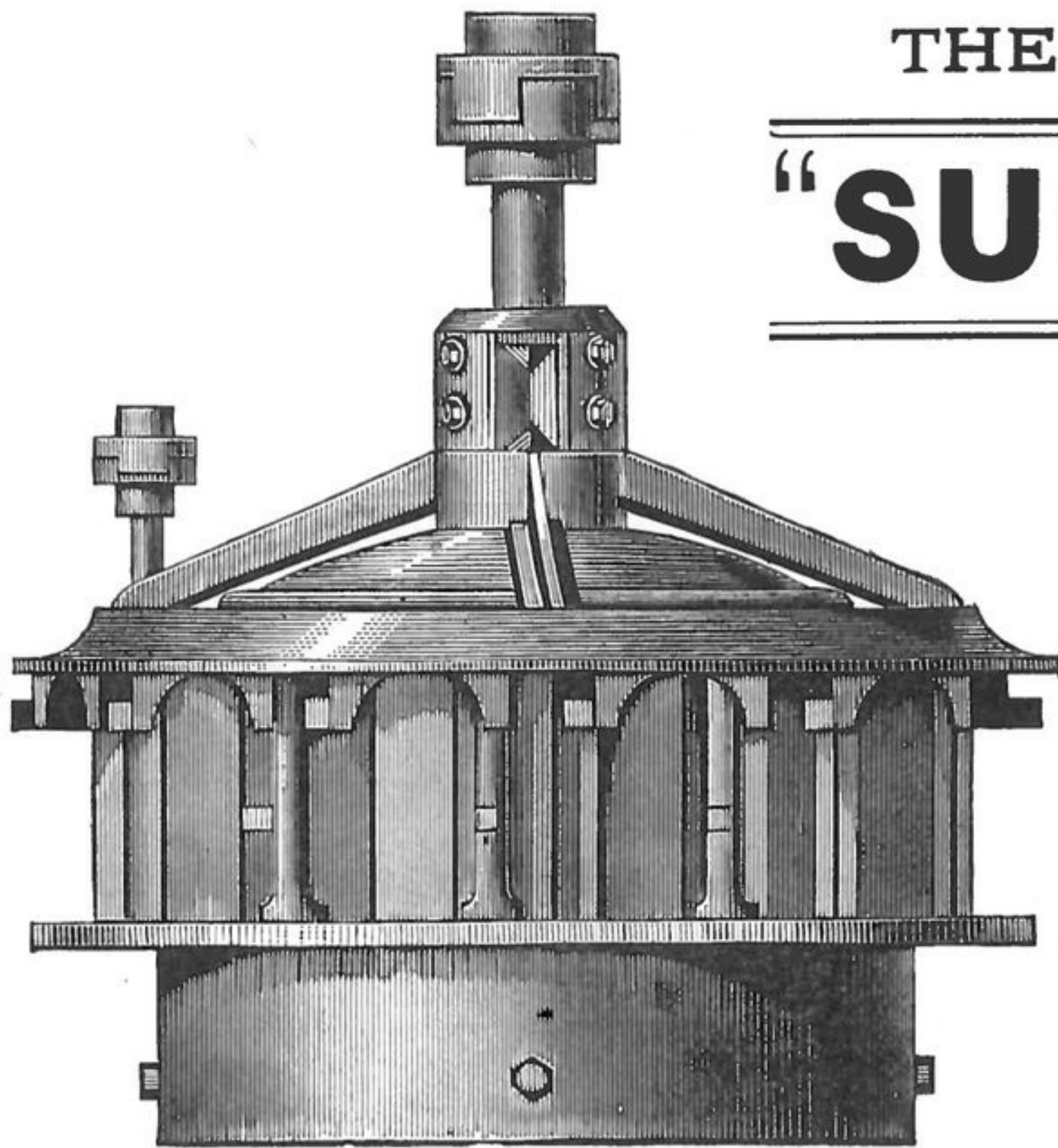
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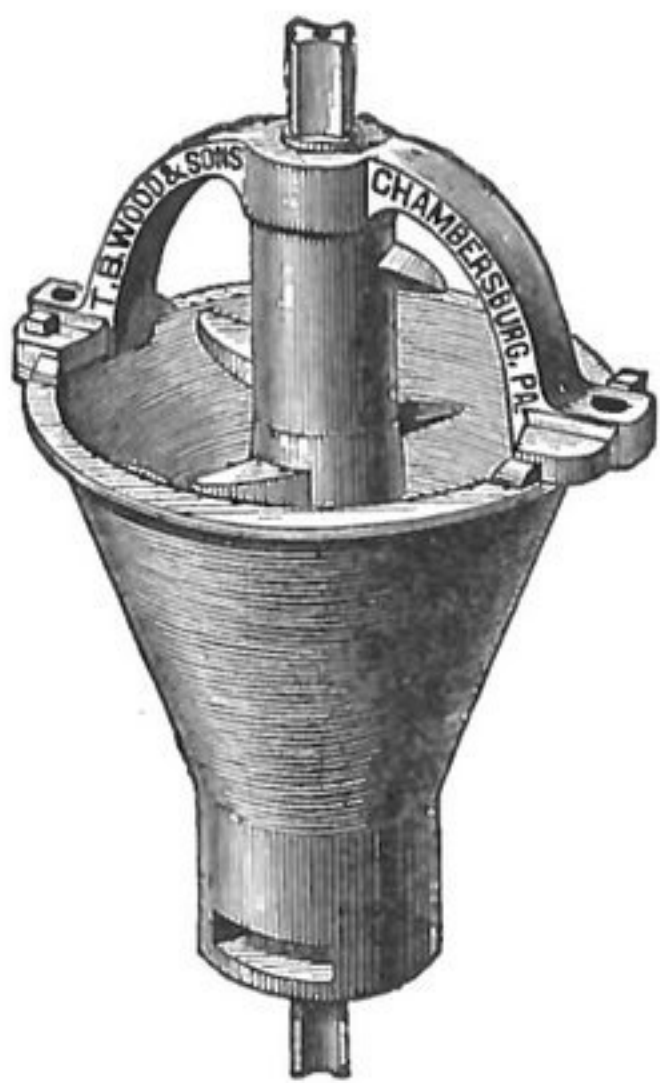
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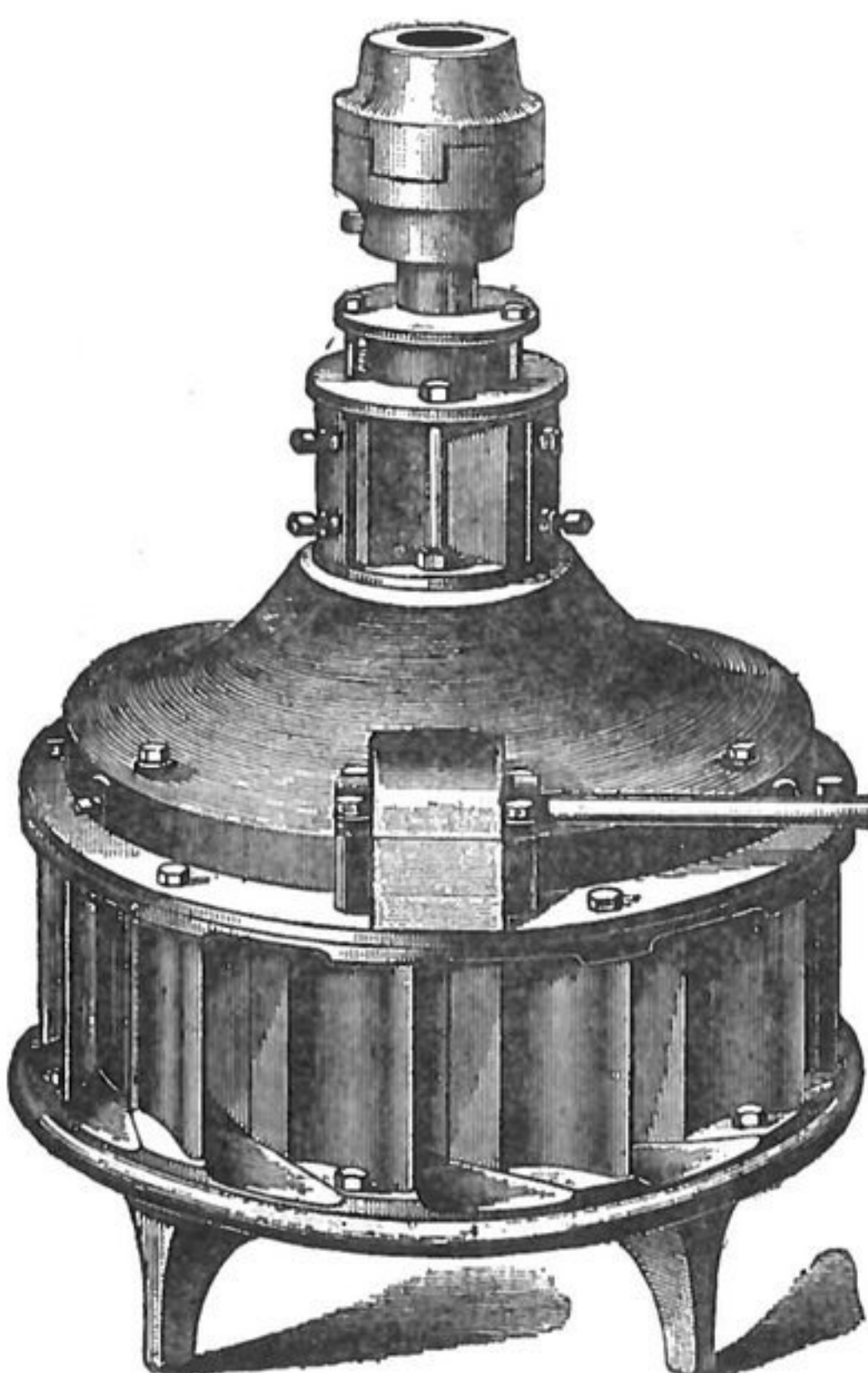


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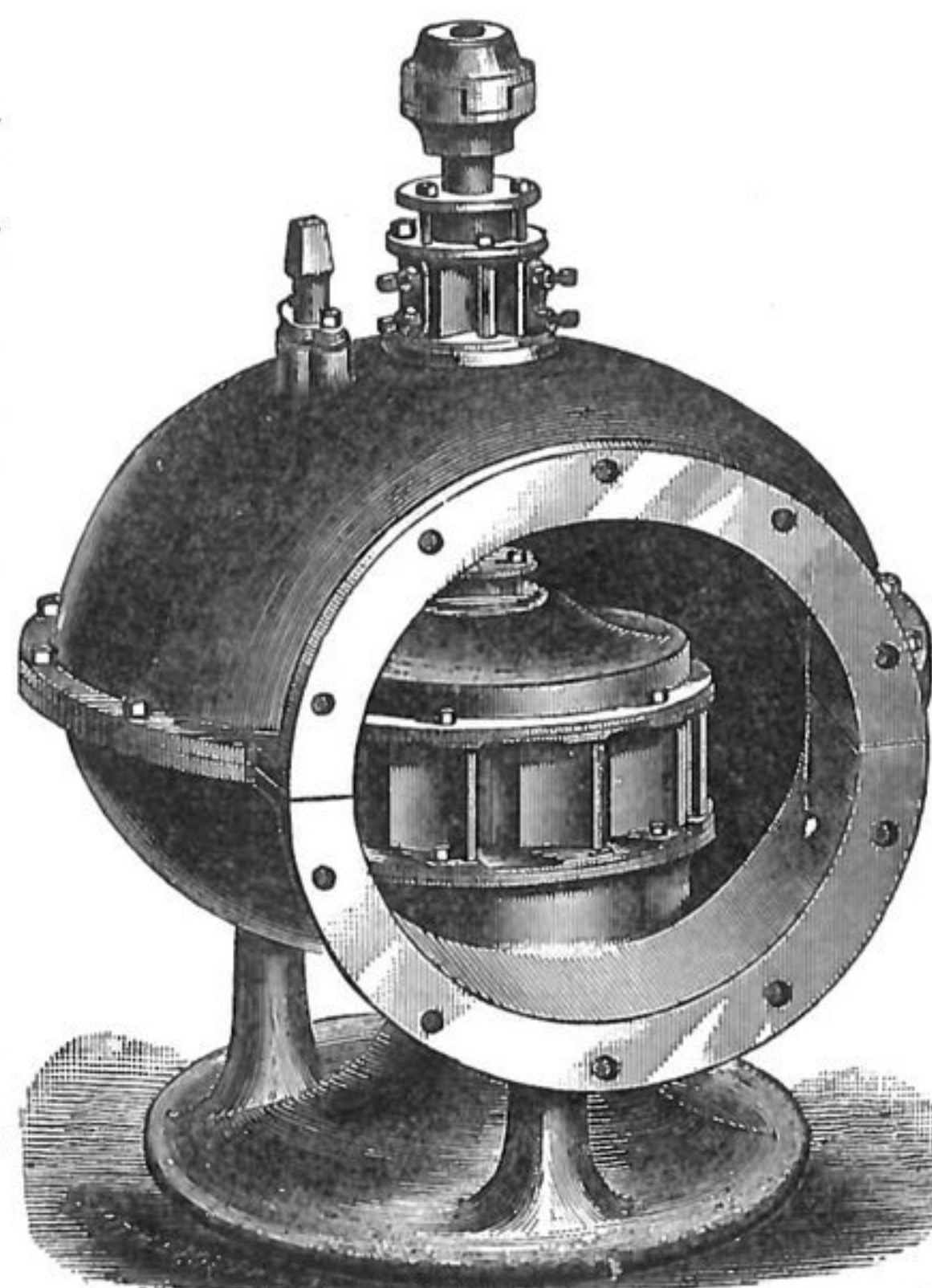
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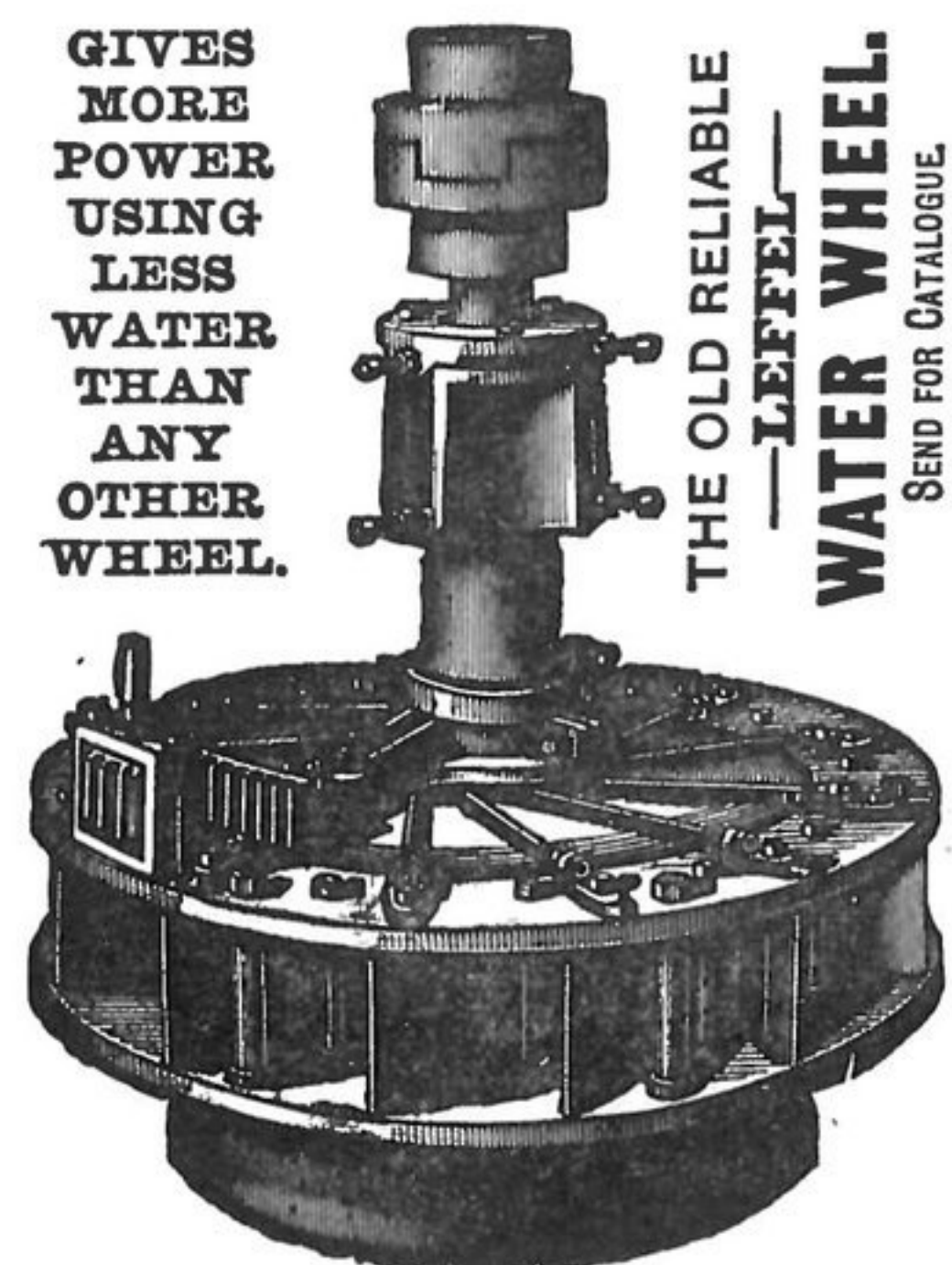


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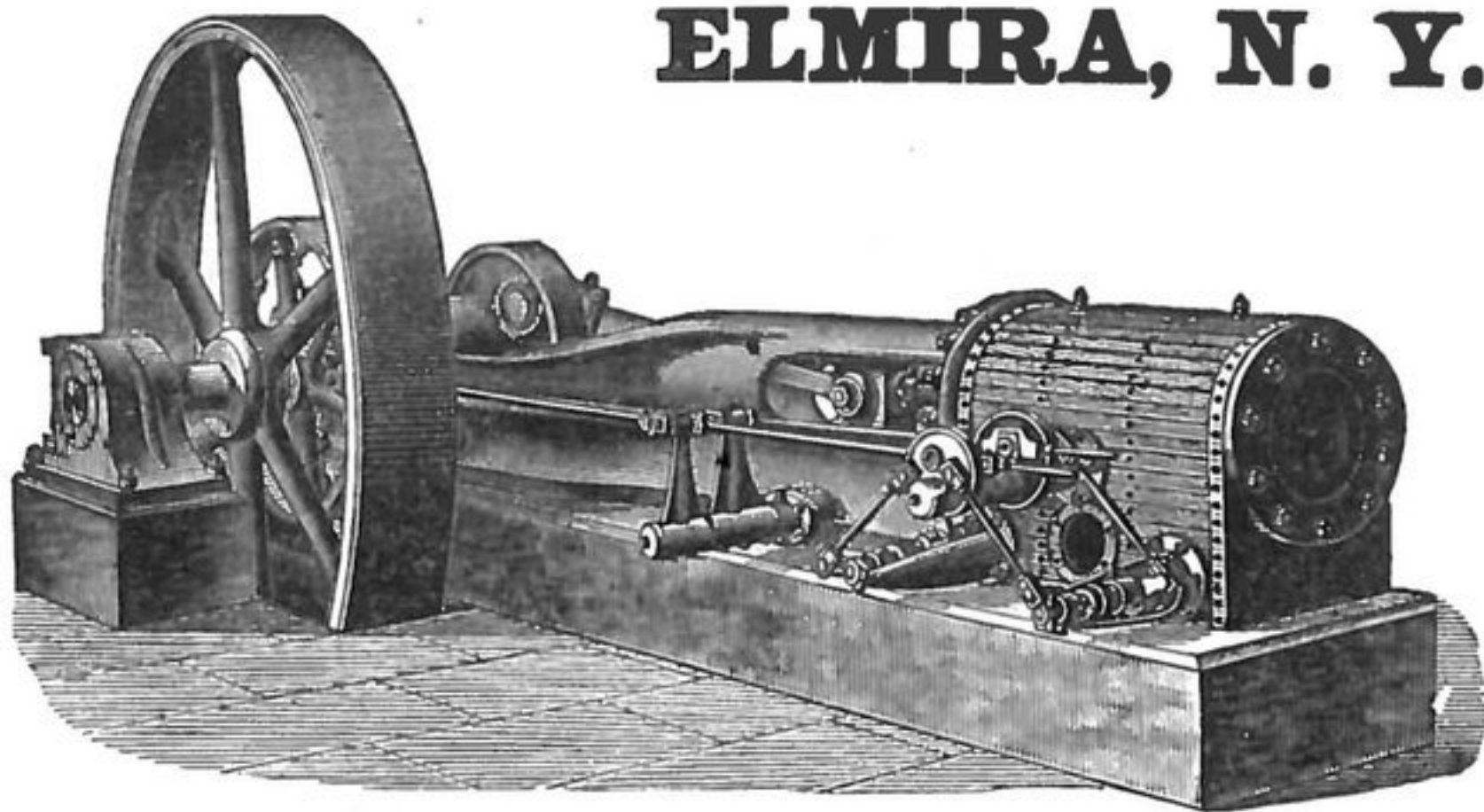


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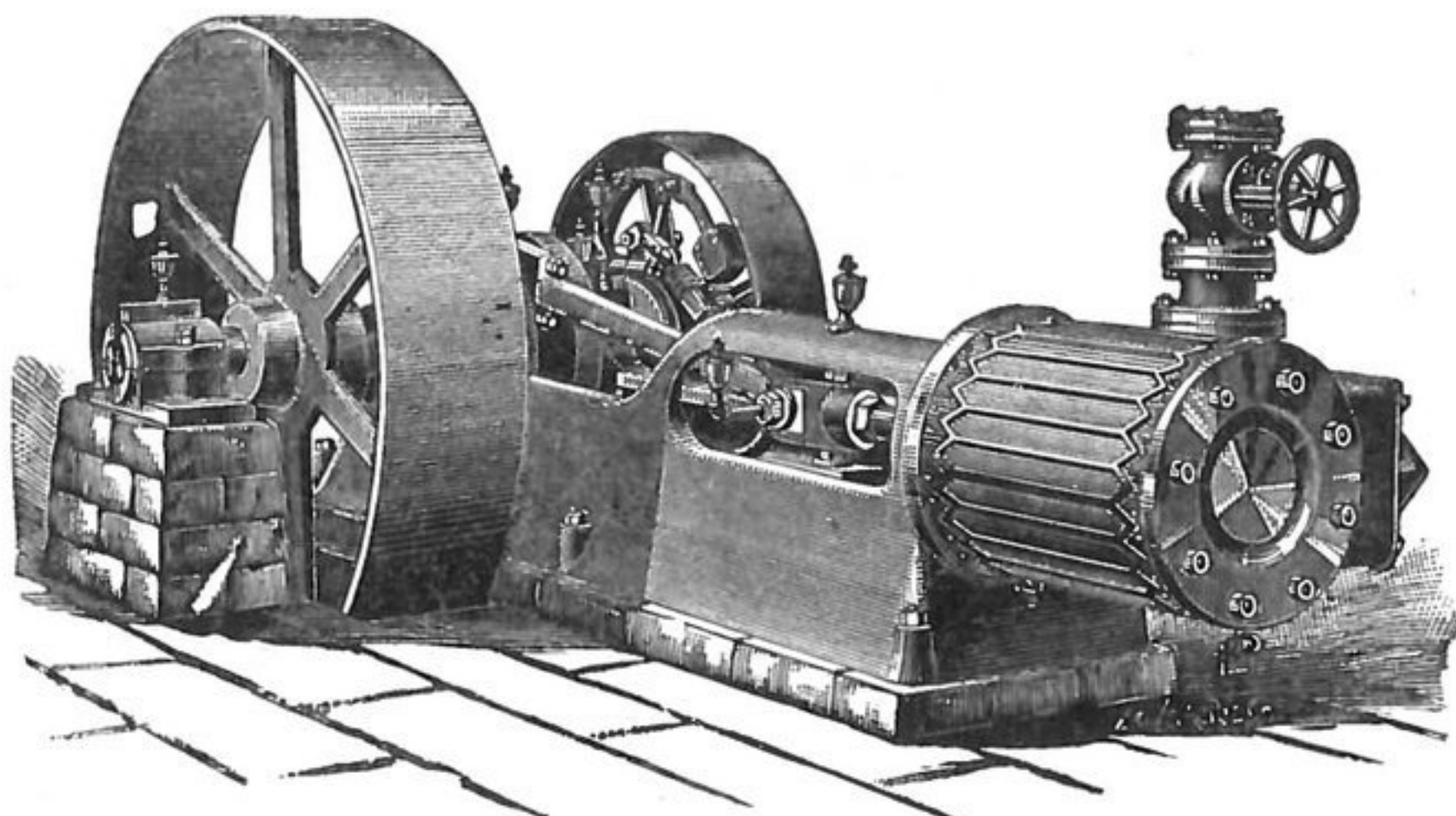
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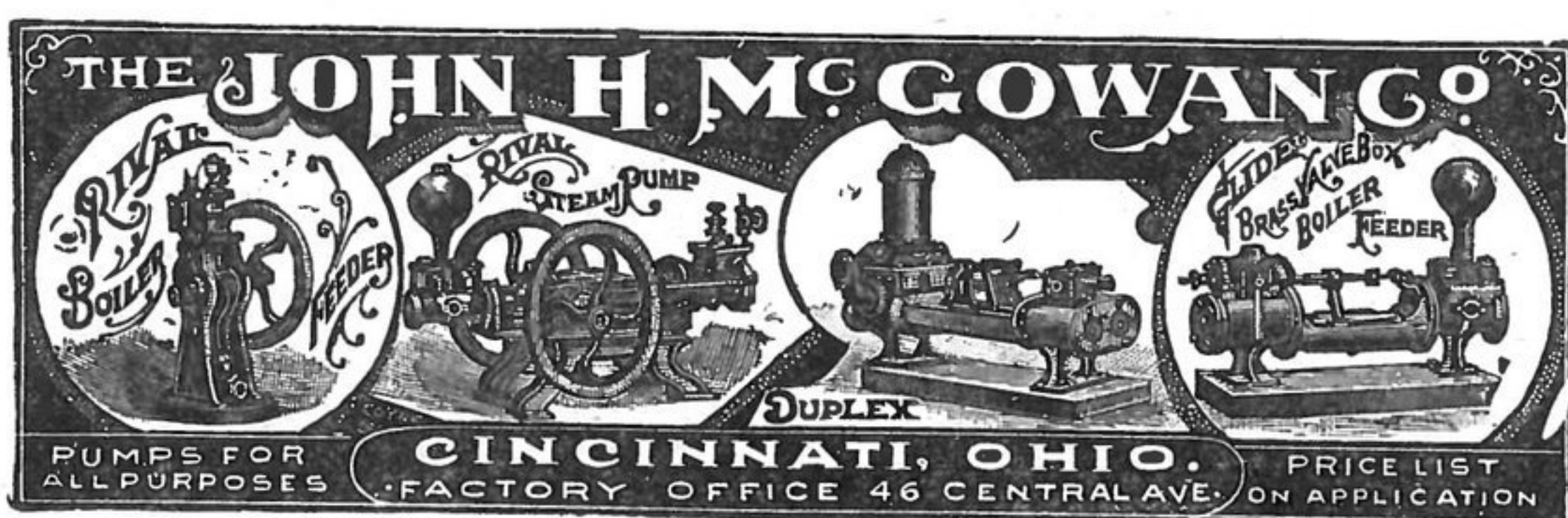
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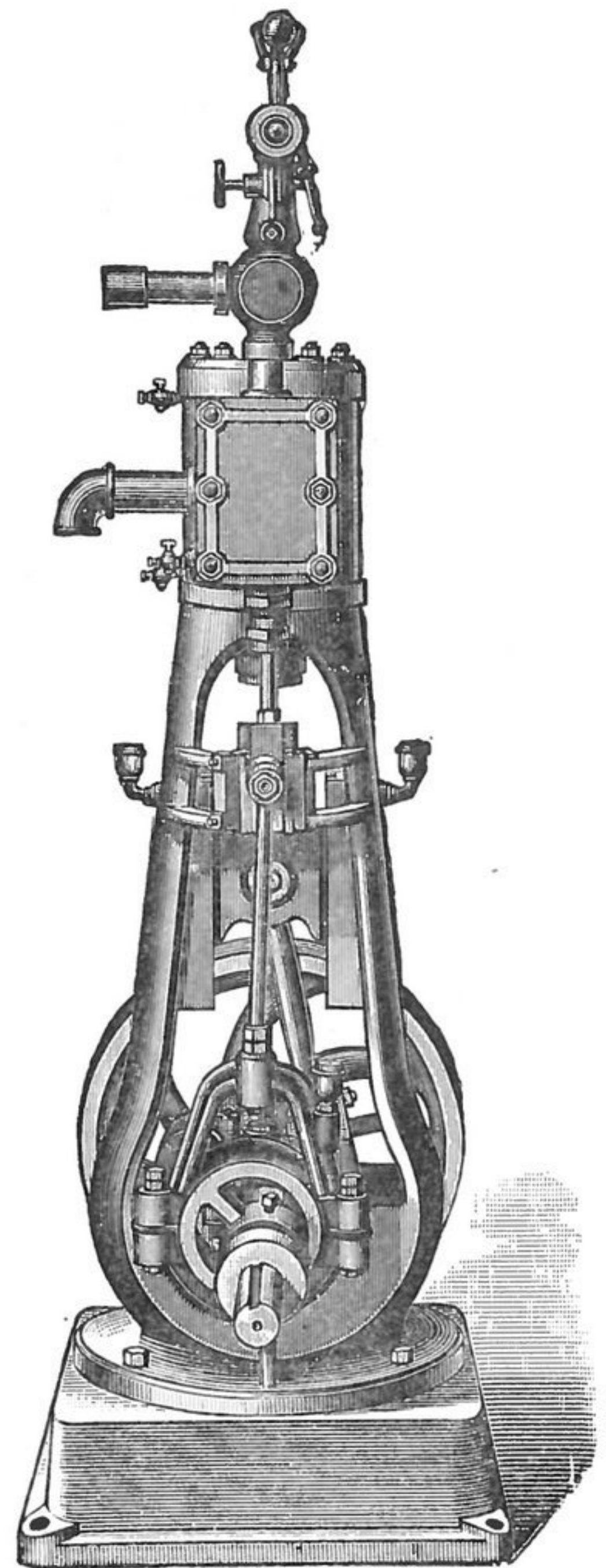
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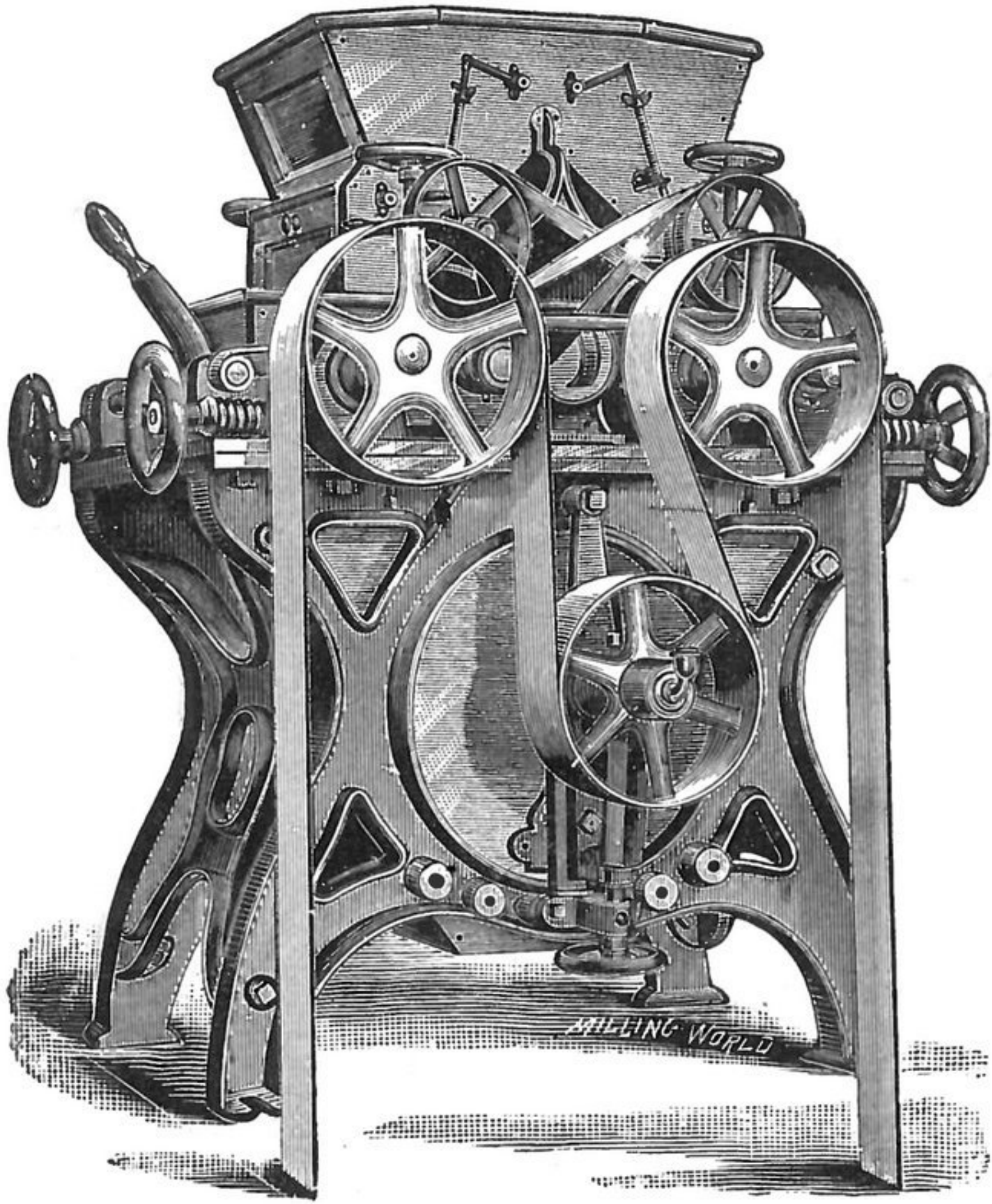


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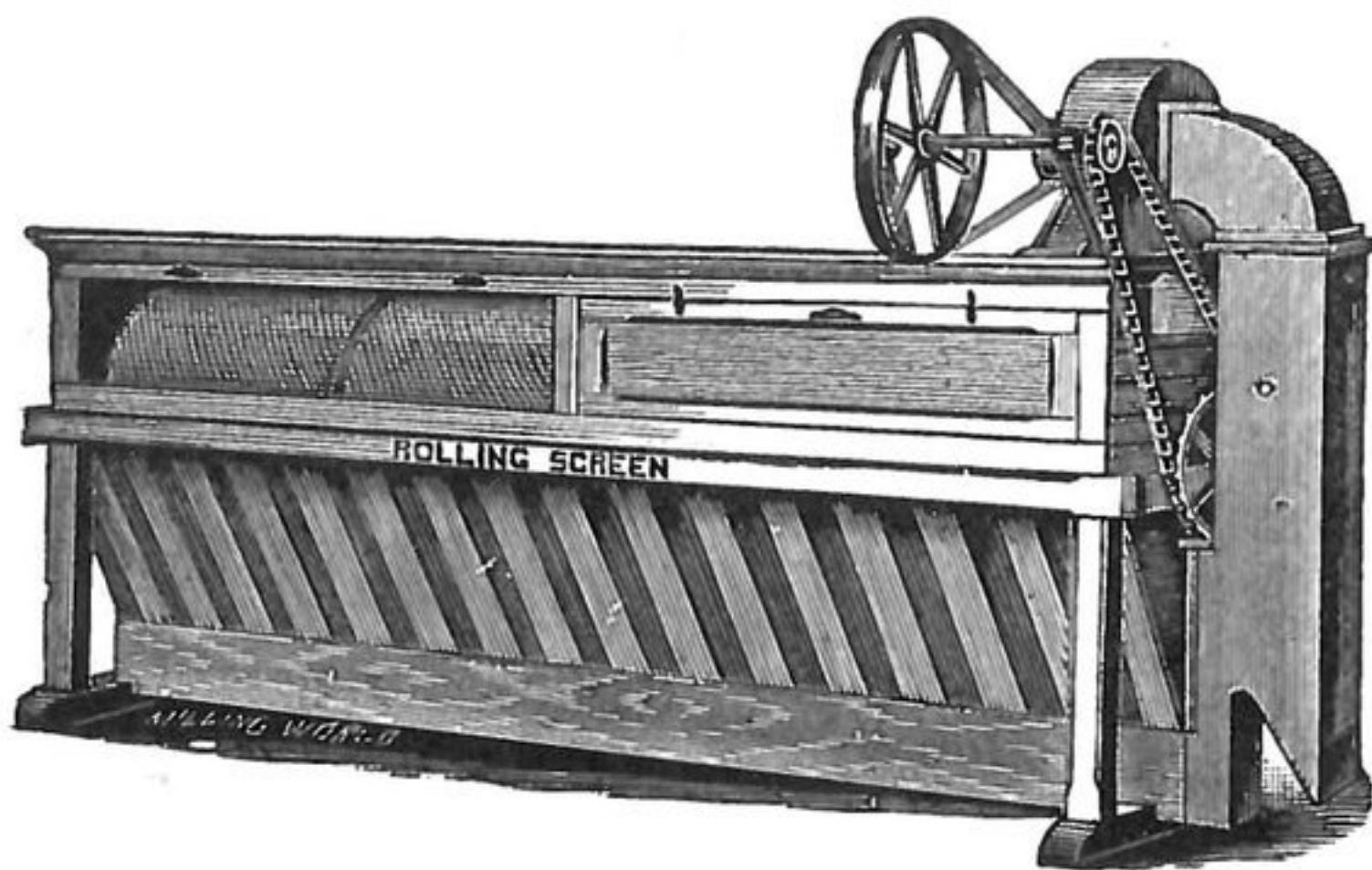
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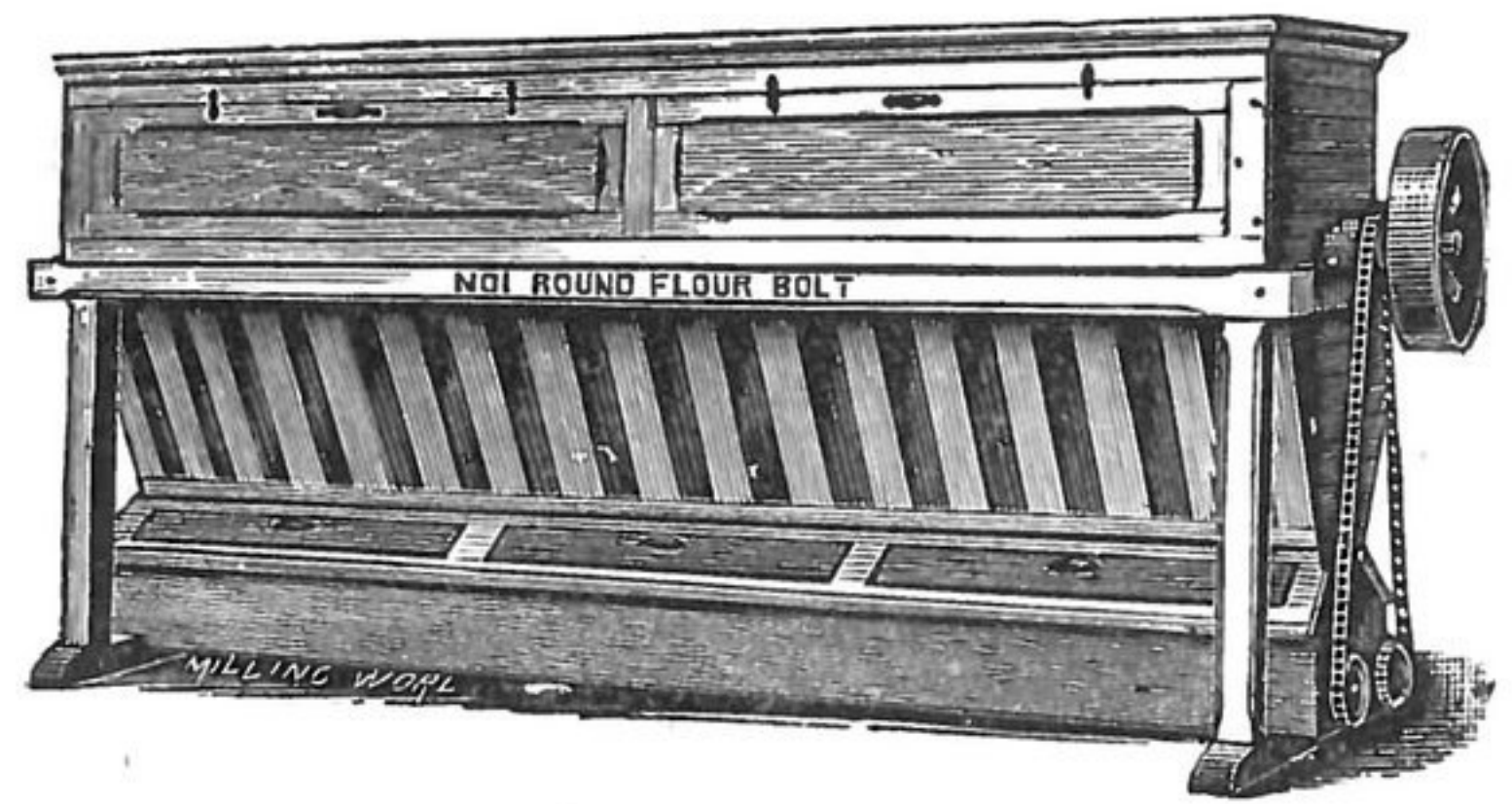
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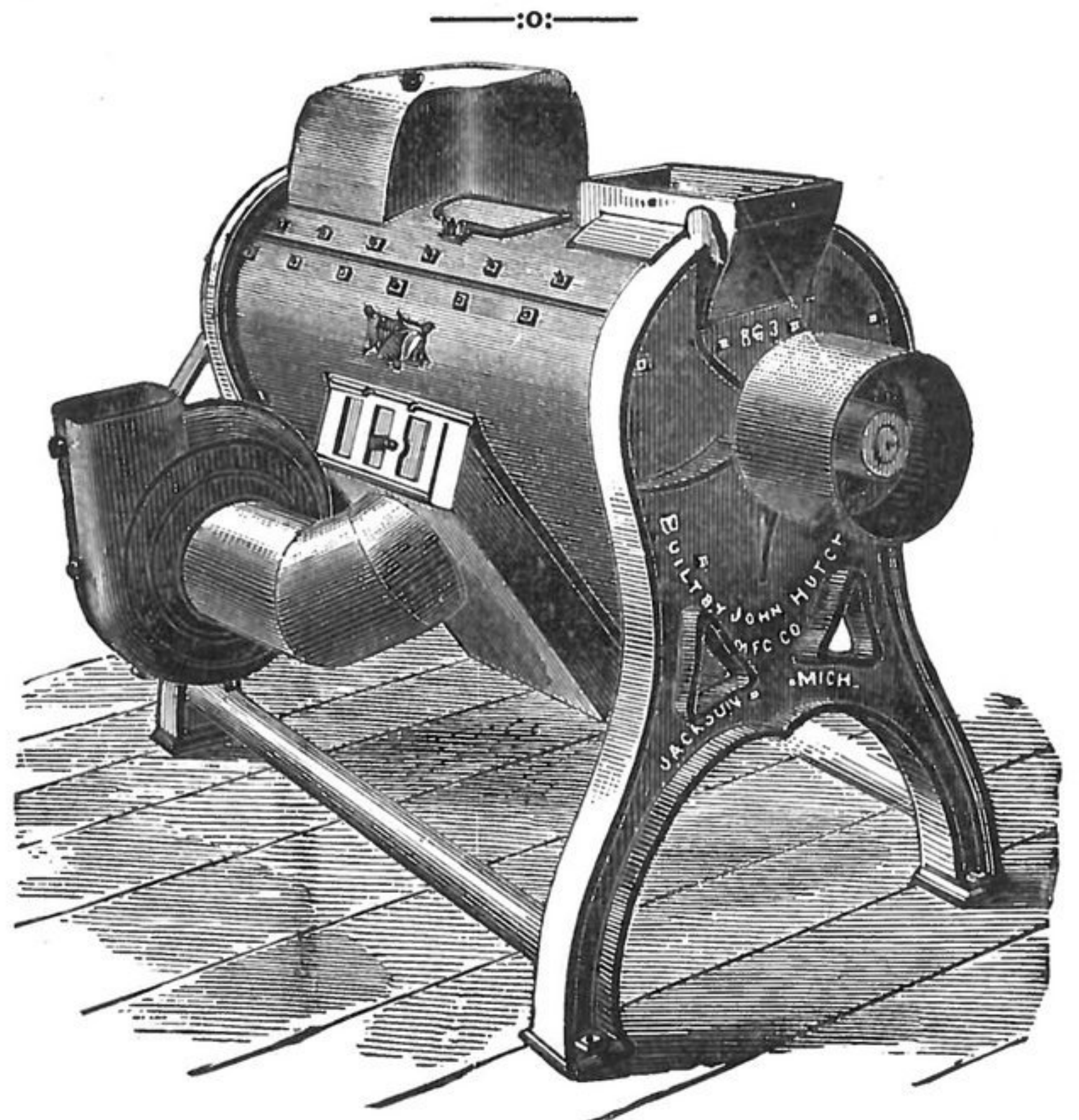


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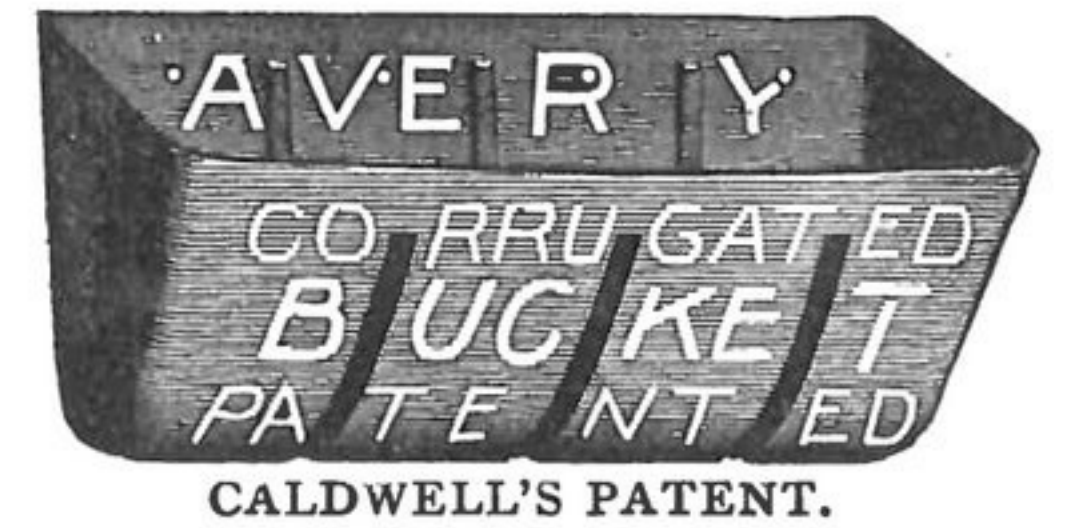
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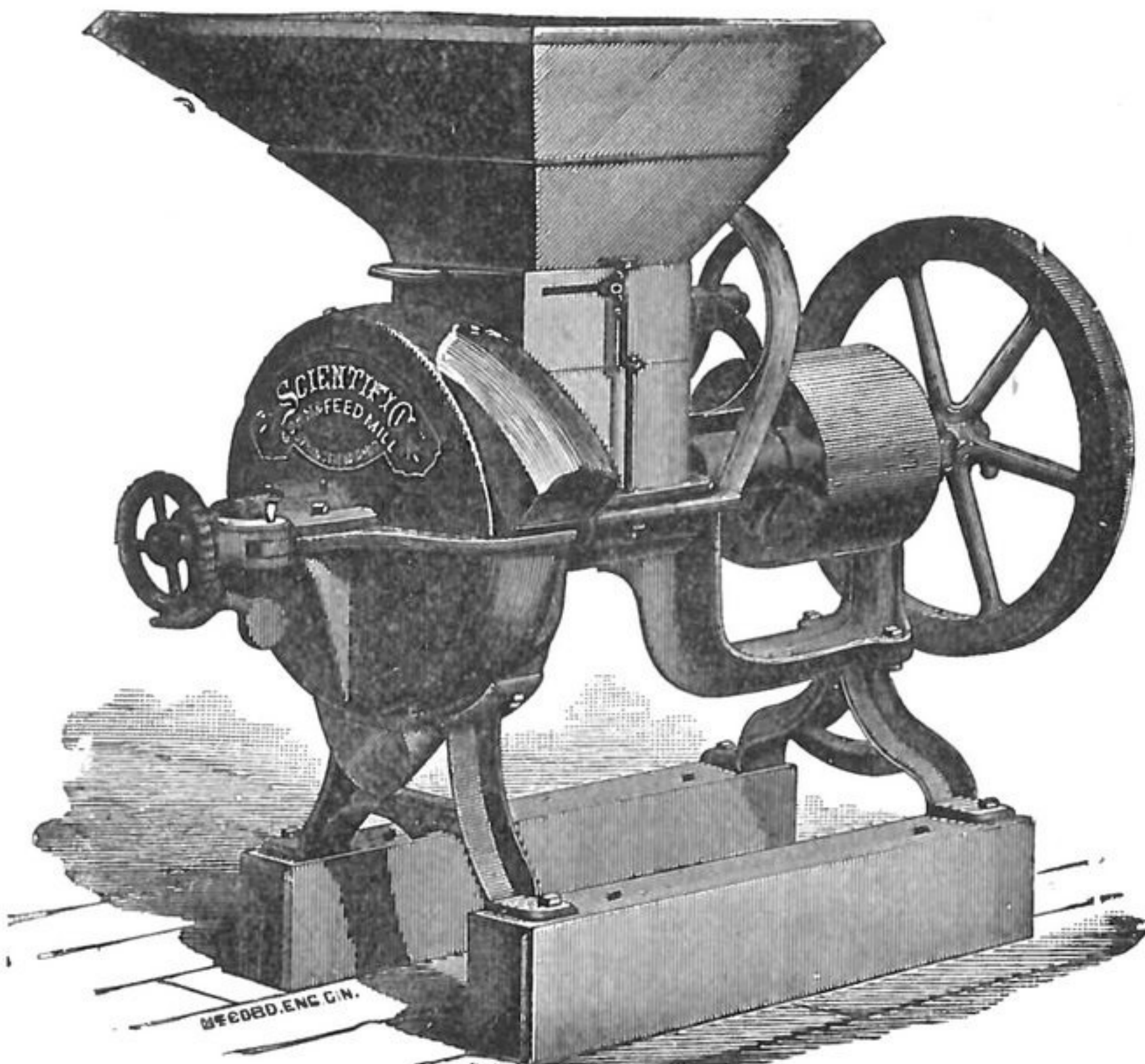
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